符 号 说 明

1．凡数据后有符号“*”，表示光栏位置或其值间有光栏。有符号“**”，表示参考数据。

2．凡没有注明数值单位的，均以毫米为单位；若注明以英寸为单位，则在该镜头资料中均以英寸为单位。

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3．常用符号：

ΣS_1	球差系数和；
ΣS_2	彗差系数和；
ΣS_3	象散系数和；
ΣS_4	场曲系数和；
ΣS_5	畸变系数和；
LA'	球差；
$\Delta H'$	绝对畸变；
x_t'	细光束子午场曲；
x_s'	细光束弧矢场曲；
$x_t'-x_s'$	象散；
K_{T1}'	全口径的子午彗差；
$K_{T0.7}'$	0.707 口径的子午彗差；
QP	相对畸变；
HI	理想象高；
E．F．L	焦距；
B．F．L	后截距；
F No．	相对孔径倒数；
F．A．	视场角；
L_p'	入瞳距离或光栏距 L_p' 下标所示面的距离；
η	物高；
ω	镜头视场。

1109933

VISIT…

编号：03-02-001

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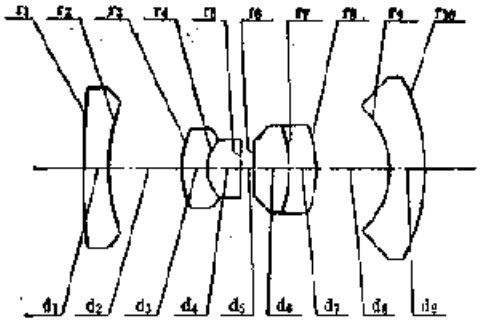
广　角　镜　头

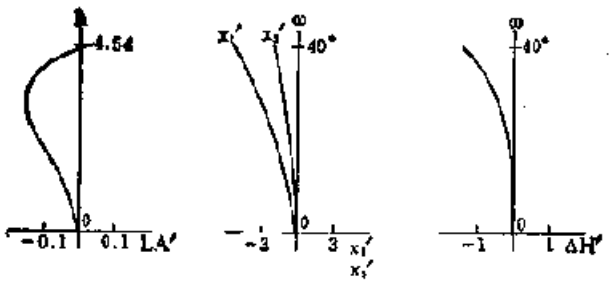
E.F.L＝100　　B.F.L＝53.35　　FNo.＝11　　F.A.＝±40°

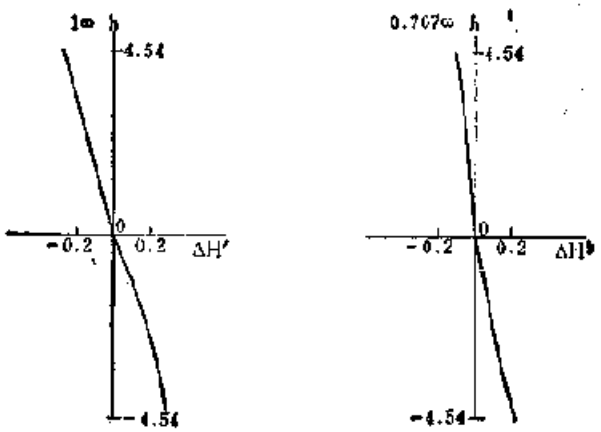


序号	r	d	nd	ν	序号	r	d	nd	ν
1	585.51	7.69	1.81375	56.4	6	− 64.54	10.77	1.81600	46.8
2	52.68	23.08			7	− 39.90	8.46	1.80518	25.4
3	26.50	7.69	1.74400	44.8	8	− 41.66	23.08		
4	12.27	10.77	1.60729	59.4	9	− 25.89	10.77	1.72825	28.5
5	−869.76	4.62*			10	− 62.57			

4.62* = 2.31 + 2.31

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.00244	0.00293	− 0.00338	− 0.00229	− 0.06040	84.6	− 1.7%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{f1}'	$K_{f0.7}'$
100	0.031	− 1.406	− 5.336	− 1.940	− 3.395	0.008	0.015
70	− 0.158	− 0.356	− 3.103	− 1.308	− 1.795	0.074	0.044





编号：03-02-002

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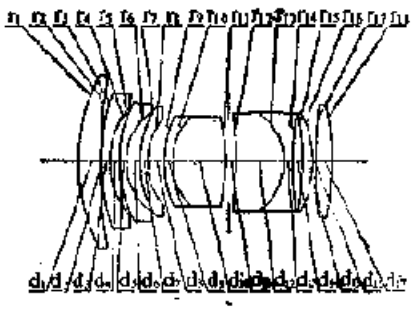
超 广 角 摄 影 镜 头

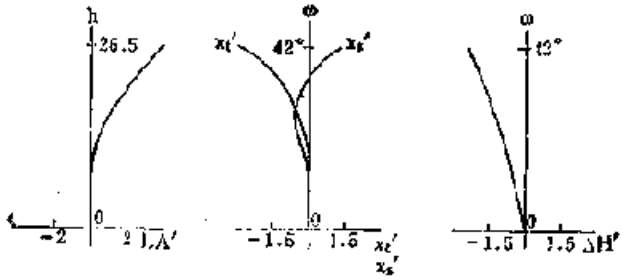
E.F.L＝106　　B.F.L＝168.07　　FNo.＝2　　F.A.＝±42°

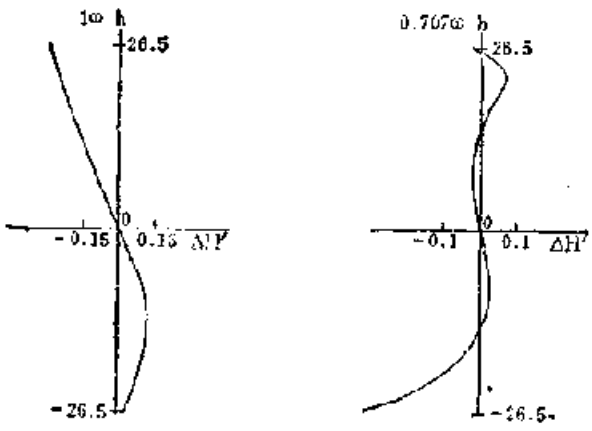


序号	r	d	n	v	序号	r	d	n	v
1	171.815	20.41	1.757	47.9	10	56.518	46.94	1.606	39.2
2	529.953	0.82			11	− 237.280	9.80*		
3	208.162	7.35	1.620	60.3	12	− 442.731	42.86	1.773	49.6
4	73.791	8.16			13	− 51.983	6.53	1.689	31.1
5	119.366	6.12	1.620	60.3	14	229.59	9.18		
6	54.314	11.84			15	− 238.492	11.22	1.697	55.5
7	91.723	6.12	1.670	57.3	16	− 88.571	0.82		
8	60.830	14.29			17	374.903	15.51	1.697	55.5
9	96.534	6.12	1.773	49.6	18	− 229.223			

9.80* = 4.90 + 4.90

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	0.0643	− 0.0228	0.0509	− 0.2725	− 1.8434	96.0	− 2.6%
h或ω%	LA′	ΔH′	x_t^*	x_s^*	$x_t^* - x_s^*$	K'_{T1}	$K'_{T0.7}$
100	3.845	− 2.489	− 2.939	1.328	− 4.267	− 0.143	− 0.663
70	1.430	− 1.012	− 0.584	− 0.699	0.115	− 0.178	− 0.607





编号：03-02-003

超 广 角 摄 影 镜 头

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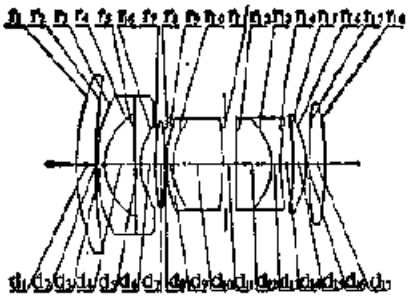
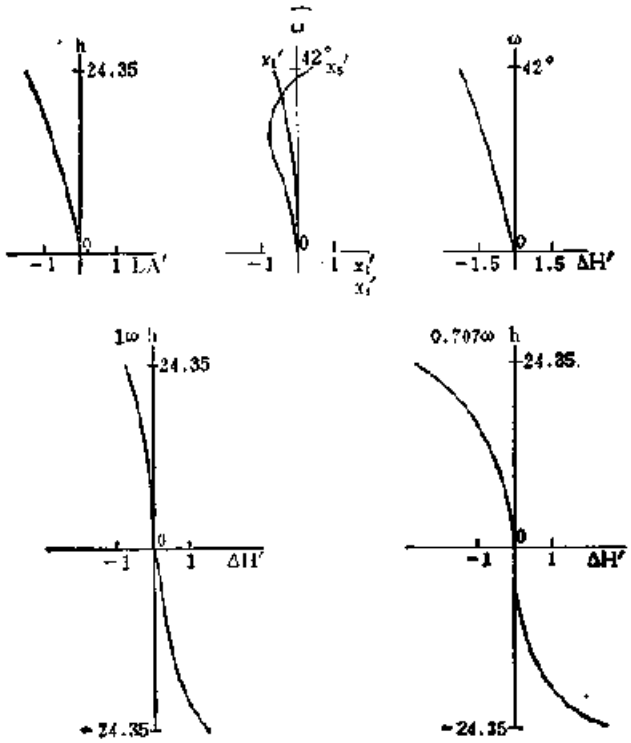
E.F.L＝97.4　　B.F.L＝150.7　　FNo.＝2　　F.A.＝±42°



序号	r	d	n	ν	序号	r	d	n	ν
1	204.057	18.27	1.744	44.8	10	64.219	44.08	1.603	38.0
2	626.767	0.82			11	− 316.204	10.61*		
3	138.494	7.35	1.603	60.7	12	−2779.380	32.23	1.773	49.6
4	52.127	28.12			13	− 55.363	8.16	1.699	30.1
5	∞	6.12	1.603	60.7	14	175.571	12.25		
6	67.093	12.24			15	− 264.812	12.25	1.697	55.6
7	233.632	9.80	1.516	56.8	16	− 88.820	0.82		
8	− 633.159	0.82			17	339.233	15.51	1.67	57.3
9	111.159	6.12	1.773	49.6	18	− 239.816			

10.61* = 5.31 + 5.30

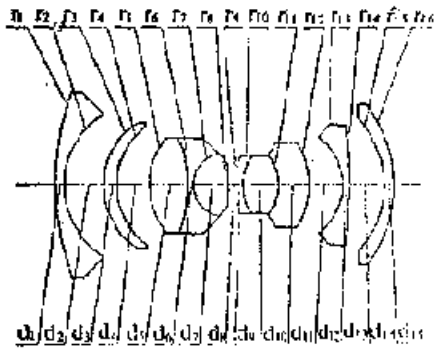
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HT	QP(1ω)
	− 0.3630	0.6881	0.0414	− 0.3589	− 1.6816	97.7	− 2.5%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	− 3.556	− 2.234	− 0.642	0.523	− 0.965	0.040	0.014
70	− 1.083	− 1.425	− 0.239	− 0.036	0.646	− 0.008	− 0.009



编号：03-02-004

广　角　镜　头

E.F.L＝100　　**B.F.L＝34.416**　　**FNo.＝8**　　**F.A.＝±40°**



序号	r	d	n	ν	序号	r	d	n	ν
1	170.00	4.53	1.51633	64.1	9	-36.87	3.08	1.57135	52.9
2	46.44	21.54			10	- 30.50	29.00	1.68350	53.3
3	39.80	7.69	1.51633	64.1	11	- 22.85	16.92	1.80518	25.4
4	40.72	18.77			12	41.76	18.46		
5	44.48	20.60	1.69700	48.5	13	- 32.43	4.15	1.51633	64.1
6	- 70.42	3.08	1.72000	43.7	14	- 257.17	18.40		
7	17.44	20.00	1.58215	42.1	15	- 53.93	4.95	1.51633	64.1
8	215.37	4.62*			16	- 73.63			

4.62* = 2.31 + 2.31

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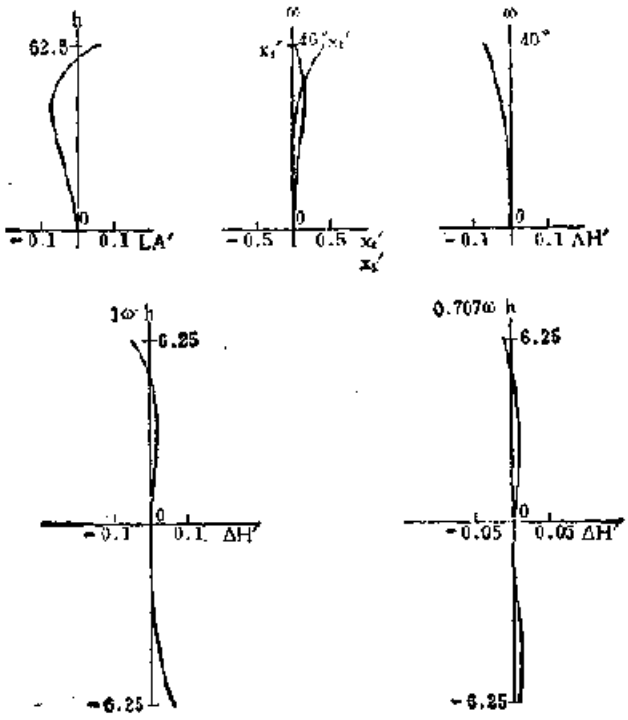
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	- 0.00230	- 0.00144	- 0.00294	0.00666	- 0.00602	83.9	- 0.67795

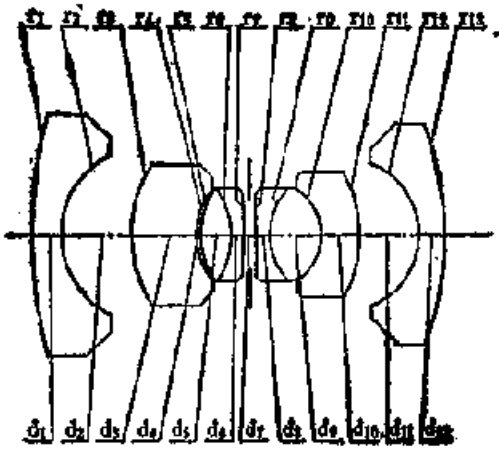
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K'_{1t}	$L'_{fo.1}$
100	0.047	- 0.065	0.436	- 0.021	0.457	- 0.004	0.002
70	- 0.069	- 0.017	0.069	0.170	- 0.678	- 0.006	0.0.1



编号：03-02-005

超　广　角　镜　头

E.F.L＝100　　B.F.L＝28.9　　FNo.＝2.8　　F.A.＝±45°



序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	270.70	17.00	1.49388	66.1	8	1225.00	8.30	1.52015	69.6
2	47.95	38.55			9	35.85	29.20	1.62041	60.3
3	68.00	36.28	1.72340	38.0	10	− 29.79	20.40	1.80802	40.7
4	30.72	2.20			11	− 74.73	34.50		
5	43.14	16.90	1.67790	55.5	12	− 42.06	14.00	1.50463	64.7
6	− 45.35	6.80	1.57501	41.3	13	− 176.70			
7	−792.80	6.00*							

6.00* = 3.00 + 3.00

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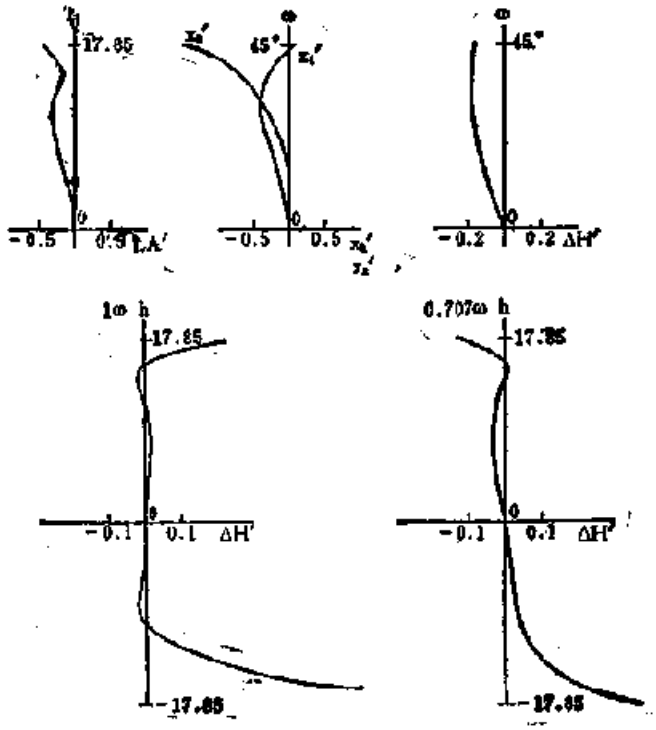
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	OP(1ω)
	− 0.0867	− 0.0257	− 0.0534	0.0342	− 0.1992	100	− 0.18%
h 或 ω%	LA′	ΔH′	x_c	x_s'	$x_c - x_s'$	Kf_1	$Kf_{0.7}$
100	− 0.437	− 0.176	0.048	− 1.570	1.617	1.577	0.062
70	− 0.295	− 0.185	− 0.426	− 0.392	− 0.034	0.181	0.035



编号:03-02-006

超广角镜头

E.F.L=100　　B.F.L=32.71　　FNo.=2.8　　F.A=±45°

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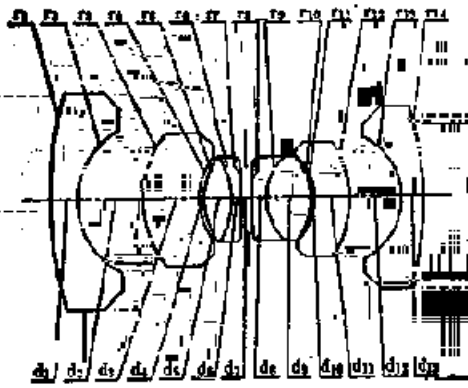


序号	r	d	n_d	ν
1	227.00	17.00	1.49388	66.1
2	118.21	40.80		
3	67.64	35.16	1.66998	39.2
4	40.75	3.04		
5	45.25	16.90	1.67790	55.5
6	−18.00	6.30	1.56138	45.3
7	−715.00	5.76*		

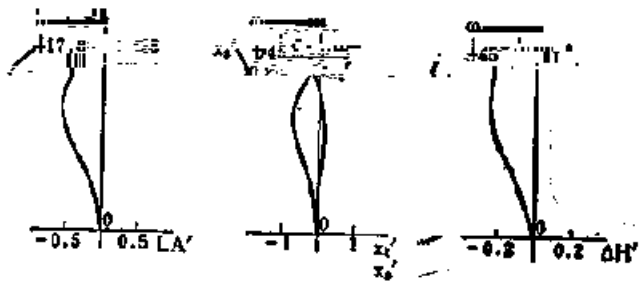
序号	r_1	d	n_d	ν
8	893.84	9.55	1.47069	67.8
9	34.85	27.00	1.55753	67.8
10	−41.50	0.70		
11	−36.87	24.10	1.85000	29.0
12	−83.54	32.00		
13	−42.55	12.50	1.51823	59.0
14	−199.70			

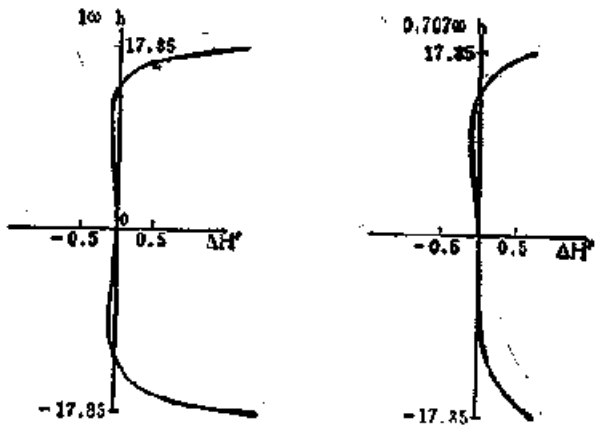
d_1 d_2 d_3 d_4 d_5 d_6 d_7 d_8 d_9 d_{10} d_{11} d_{12} d_{13} d_{14}

5.76* = 3.00 + 2.76

ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	OP(1ω)
−0.127	−0.064	−0.110	0.103	−0.298	100	0.17%

h 或 ω%	LA′	ΔH′	x_1'	x_2'	$x_1'-x_2'$	K_{T1}	K_{Te}
100	−0.029	−0.172	0.188	−0.527	0.715	1.855	−0.06
70	−0.579	−0.268	−0.714	0.010	0.724	0.820	0.01





编号：03-02-007

反远距型广角摄影镜头

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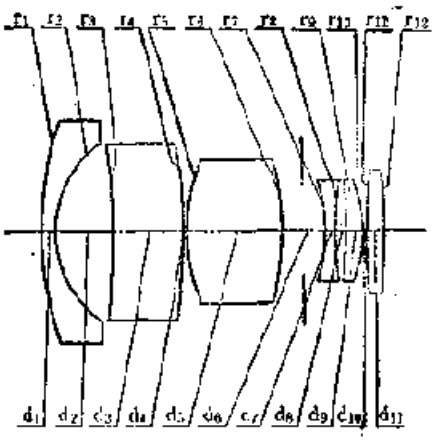
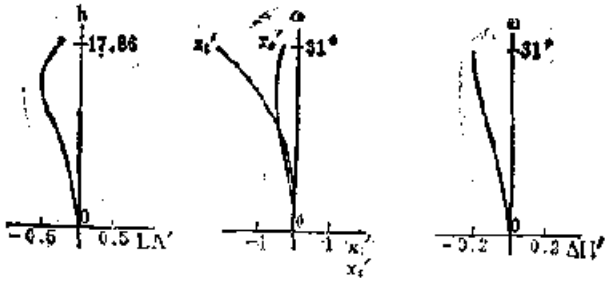
E.F.L＝100　　B.F.L＝107.292　　FNo.＝2.8　　F.A.＝±31°

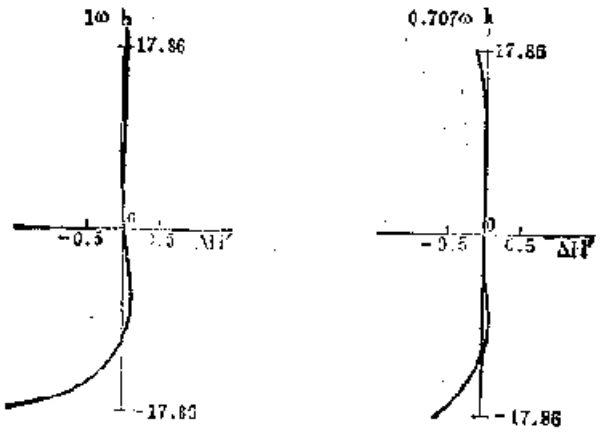


序号	r	d	n	ν_d	序号	r	d	n	ν_d
1	133.333	5.556	1.51454	54.6	7	−55.023	4.167	1.71736	29.5
2	42.683	22.222			8	118.387	3.750		
3	−258.333	27.778	1.51680	64.2	9	−121.611	7.500	1.74418	19.4
4	233.333	0.278			10	−43.167	0.278		
5	73.056	37.500	1.71300	53.9	11	277.778	6.944	1.62041	60.3
6	−133.889	17.222*			12	−136.669			

17.222* = 8.611 − 8.611

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QF(1ω)
	−0.0892	0.0238	0.0129	−0.1165	−0.2212	60.1	−0.59%
h 或 ω %	LA′	AH′	x_t	x_t'	$x_t' - x_s'$	Kf_t	$Kf_{0.7}$
100	−0.317	−0.234	−2.251	−0.365	−1.886	−0.336	−0.110
70	−0.186	−0.191	−0.772	−0.655	−0.117	−0.386	−0.049





编号：03-02-008

反远距型广角摄影镜头

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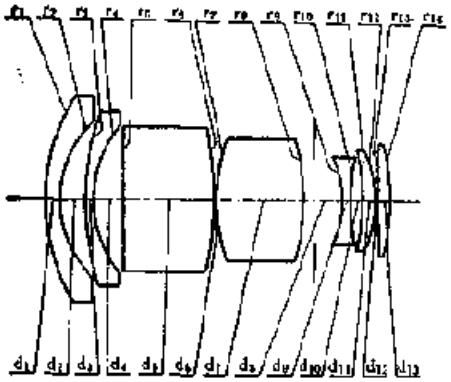
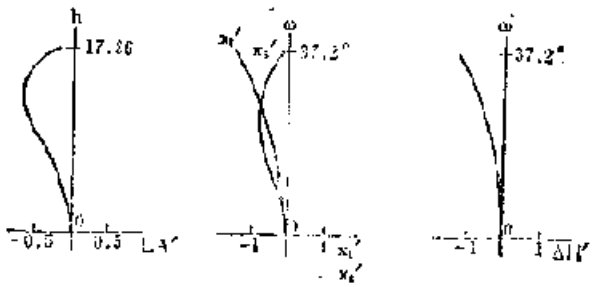
E.F.L＝100　　B.F.L＝131.5　　FNo.＝2.8　　F.A.＝±37.2°

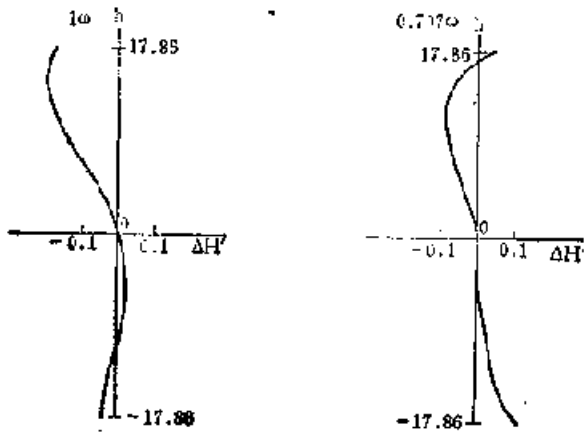


序号	r	d	n	ν_d	序号	r	d	n	ν_d
1	125.874	9.090	1.62280	56.9	8	− 150.350	24.126*		
2	64.685	5.035			9	− 65.909	6.294	1.72825	28.3
3	150.350	6.294	1.62280	56.9	10	186.713	5.245		
4	70.979	18.182			11	− 174.825	9.441	1.62041	60.3
5	− 2844.060	6.643	1.51680	64.2	12	− 64.685	0.350		
6	− 258.741	0.350			13	1748.252	7.343	1.62041	60.3
7	113.986	54.195	1.71700	47.9	14	− 91.928			

24.126* = 12.000 + 12.126

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.1297	0.0087	0.0219	− 0.1574	− 0.5513	75.4	− 1.7%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	− 0.205	− 1.291	− 1.519	− 0.094	− 1.516	− 0.137	− 0.098
70	− 0.679	− 0.619	− 0.623	− 0.833	0.206	0.033	− 0.028





编号：03-02-009

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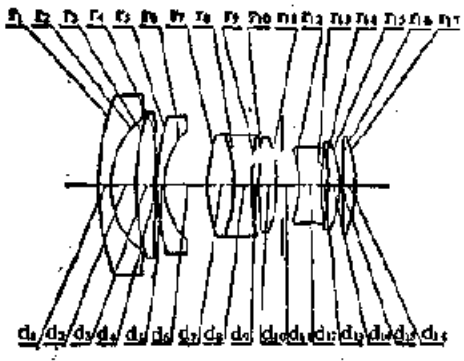
广 角 摄 影 镜 头

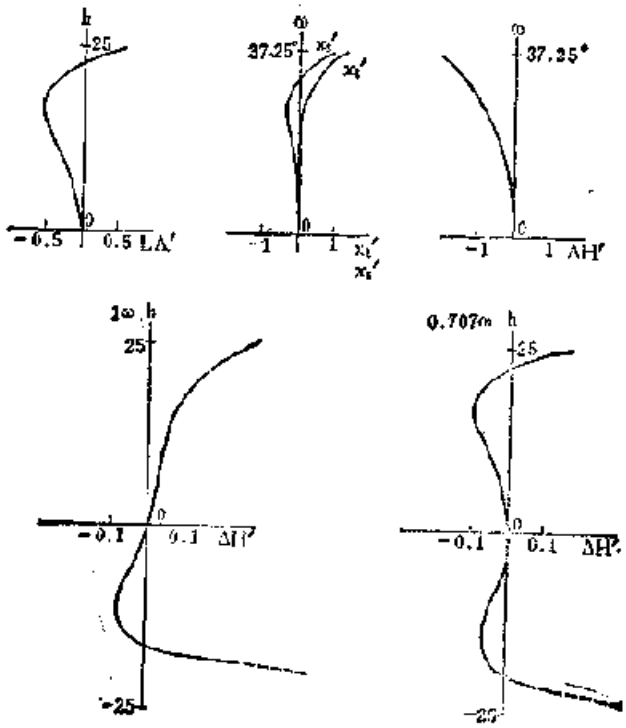
E.F.L=99.3　　B.F.L=138.4　　FNo.=2　　F.A.=±37.25°



序号	r	d	n_d	v	序号	r	d	n_d	v
1	227.238	11.189	1.62299	58.1	10	297.203	17.483	1.51680	64.2
2	76.224	22.727			11	− 106.388	20.280*		
3	237.762	16.434	1.74400	44.9	12	− 67.133	18.881	1.78470	26.1
4	5956.748	0.350			13	253.497	4.895		
5	213.252	6.993	1.62299	58.1	14	− 244.755	11.858	1.74443	47.9
6	63.986	38.461			15	− 76.923	0.350		
7	117.098	23.427	1.77250	49.5	16	875.524	12.238	1.71300	53.9
8	− 134.266	15.743	1.51680	64.2	17	− 127.295			
9	321.241	5.245							

$20.280^* = 8.000 + 12.280$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.316	−0.092	0.074	−0.268	−1.026	75.5	−2.8%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.587	−2.119	1.249	0.893	0.356	1.450	0.109
70	−0.591	−0.863	0.032	−0.444	0.476	0.694	−0.081



编号, 03-02-010

反远距型广角照相机镜头

浏览器提醒您:
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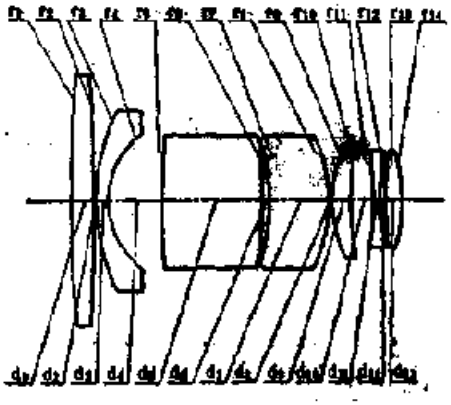
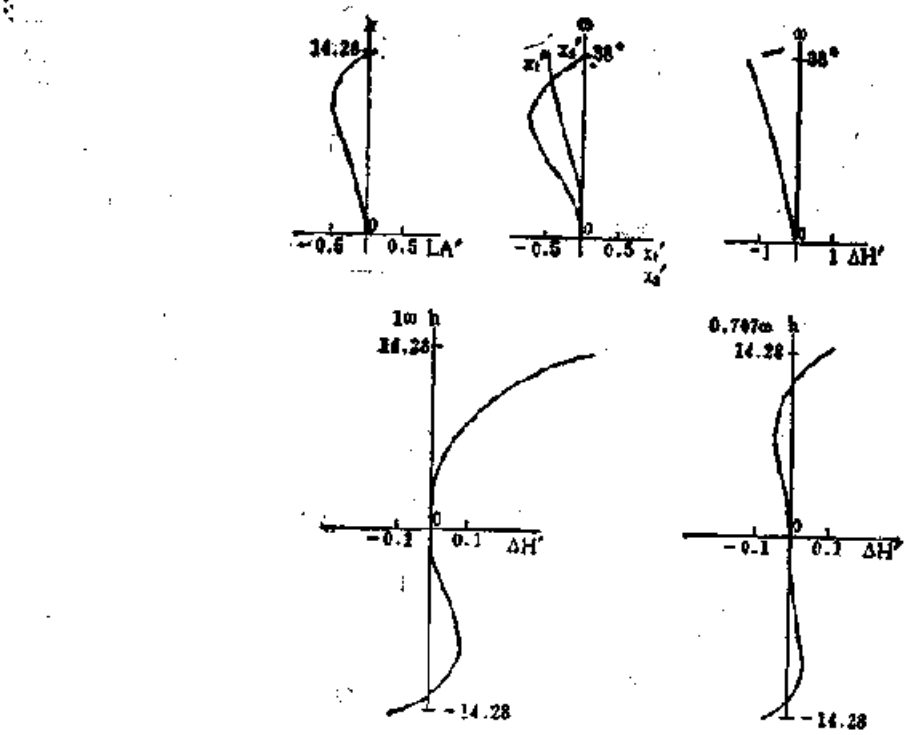
E.F.L=100　　B.F.L=136　　FNo.=8.5　　F.A.=±38°



序号	r	d	n	ν	序号	r	d	n	ν
1	2931.009	10.04	1.66672	48.3	8	− 71.039	0.71		
2	−1186.036	0.71			9	68.017	10.11	1.66672	48.3
3	96.327	5.89	1.62041	60.2	10	123.060	10.36°		
4	40.104	25.58			11	− 166.131	3.11	1.71736	29.5
5	364.602	47.27	1.51633	64.0	12	70.417	2.32		
6	− 207.110	2.50			13	256.417	6.84	1.71300	53.9
7	− 85.756	27.76	1.71300	53.9	14	− 73.019			

10.36°= 5.18 + 5.18

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.0643	0.0023	0.0029	−0.6833	−0.6349	78.3	−2%
h或ω%	LA′	ΔH′	x_t^s	x_s^s	$x_t^s - x_s^s$	K_{t1}^s	$K_{t0.7}^s$
100	0.039	−1.535	−0.513	0.018	−0.531	0.156	0.111
70	−0.479	−0.902	−0.362	−0.730	0.368	0.011	0.004



编号：03-02-011

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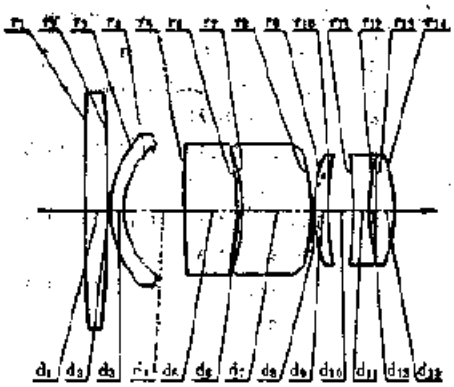
反远距型广角照相机镜头

E.F.L=100　　B.F.L=133.9　　FNo.=8.5　　F.A.=±38°

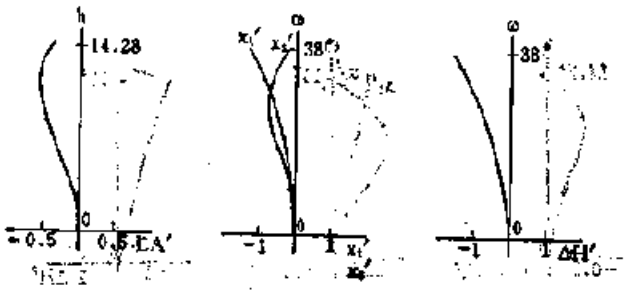


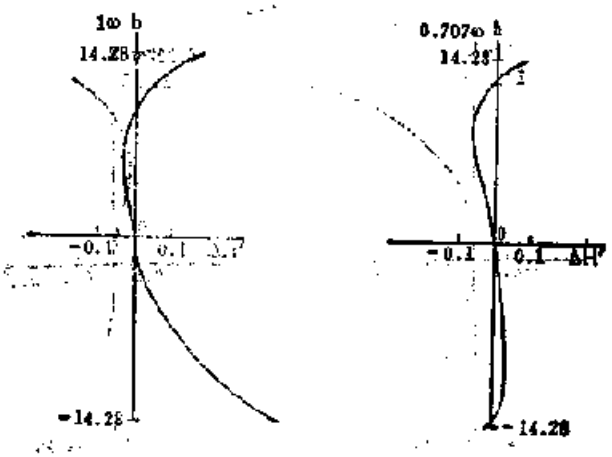
序号	r	d	n	ν	序号	r	d	n	ν
1	1712.07	10.04	1.66672	48.32	8	-69.72	0.71		
2	-1043.33	0.71			9	70.88	6.54	1.71300	53.98
3	74.37	5.33	1.62041	60.27	10	209.98	10.36*		
4	35.49	27.18			11	-201.19	6.93	1.74077	27.79
5	1631.61	22.61	1.66892	44.98	12	79.40	3.04		
6	-139.89	3.50			13	∞	8.04	1.71300	53.98
7	-69.76	31.29	1.67790	55.33	14	-62.5			

10.36*=5.18+5.18

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	-0.0583	-0.0052	0.0069	+0.0002	-0.6316	78.1	-2%

h或ω%	LA'	ΔH'	x_3'	x_5'	$x_3'-x_5'$	K_{t1}'	$K_{t0.7}'$
100	-0.377	-1.553	-1.268	+0.140	-1.128	0.291	0.105
70	-0.522	-0.890	+0.694	+0.832	0.138	0.025	-0.017

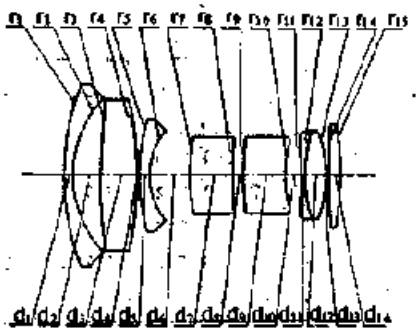




编号：03-02-012

大孔径长后截距广角镜头

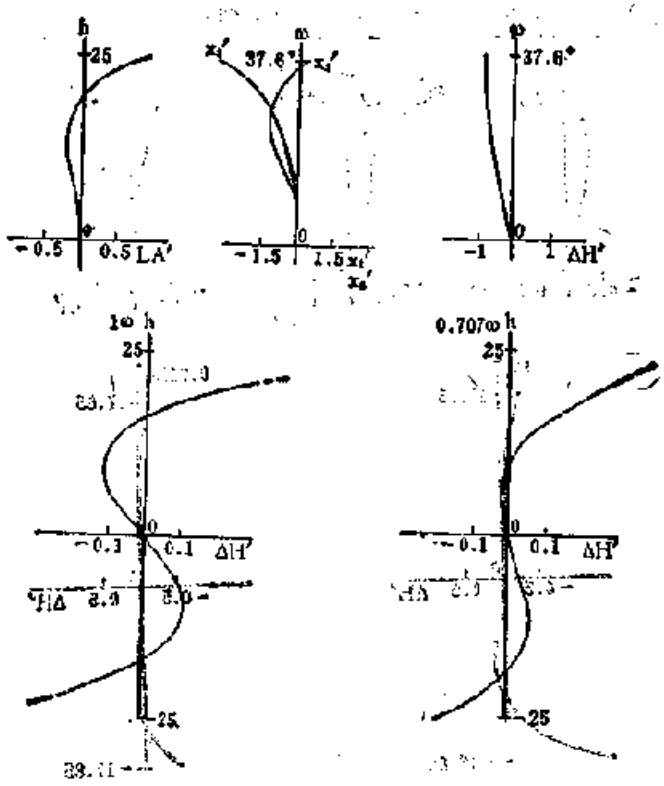
E.F.L＝100　　B.F.L＝137.5　　FNo.＝2　　F.A.＝±37.6°



序号	r	d	n_D	ν	序号	r	d	n_D	ν
1	231.5	8.0	1.64000	60.2	9	270.2	38.1	1.80518	25.4
2	85.8	26.9			10	109.6	15.5		
3	974.8	34.5	1.80610	40.8	11	− 382.9	4.2	1.80518	25.4
4	− 330.0	0.4			12	122.3	19.1	1.80300	46.7
5	202.8	8.5	1.62031	60.3	13	− 103.9	0.4		
6	60.2	36.4			14	888.1	10.3	1.80300	46.7
7	118.9	41.7	1.81554	44.5	15	− 249.0			
8	7148.9	8.8*							

8.8* = 4.4 + 4.4

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.1576	0.0433	0.0648	− 0.3785	− 1.0887	76.1	− 1.1%
h 或 ω%	LA′	ΔH′	x_t^s	x_s^s	$x_t^s - x_s^s$	K_{f1}^s	$K_{f0.7}^s$
100	0.876	− 0.874	− 3.474	0.330	− 3.804	0.092	0.034
70	− 0.164	− 0.700	− 0.799	− 1.006	0.207	0.144	0.097



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M

编号：03-02-013

广 角 摄 影 镜 头

E.F.L=100　　B.F.L=107.345　　FNo.=2.8　　F.A.≒±31°

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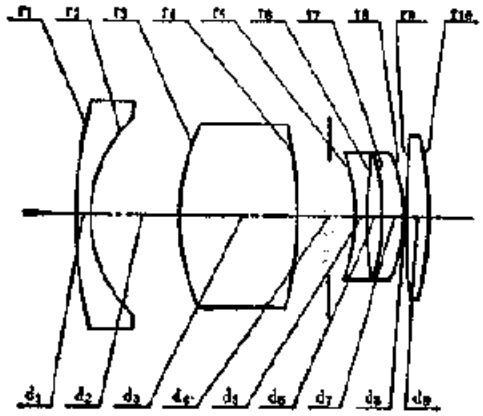
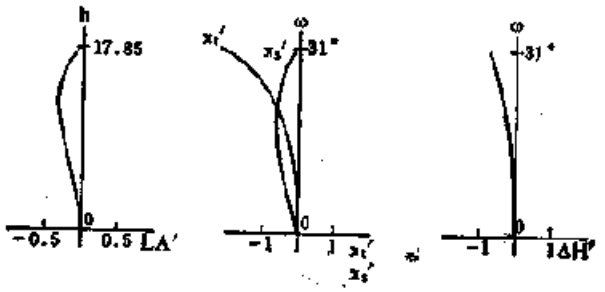
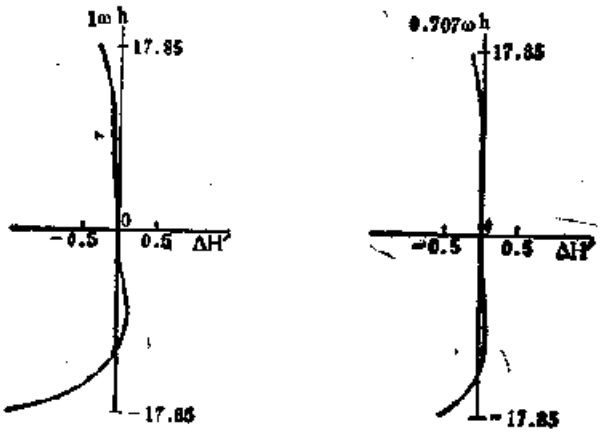


序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	161.10	4.2	1.51680	64.2	6	143.60	3.9		
2	41.90	27.8			7	− 76.70	7.2	1.77278	49.5
3	68.10	36.1	1.71300	53.9	8	− 46.40	0.3		
4	− 133.30	17.5*			9	305.60	6.7	1.71300	53.9
5	− 58.80	4.4	1.74077	27.5	10	− 109.95			

17.5* = 8.8 + 8.7

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.0750	0.0538	0.0358	− 0.1534	− 0.3333	60.1	− 1.2%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	− 0.047	− 0.713	− 2.359	− 0.065	− 2.294	− 0.852	− 0.100
70	− 0.340	− 0.339	− 0.553	− 0.663	0.110	− 0.368	− 0.009





编号：03-02-014

广 角 摄 影 镜 头

E.F.L＝100　　B.F.L＝104.66　　FNo.＝2.8　　F.A.＝±31°

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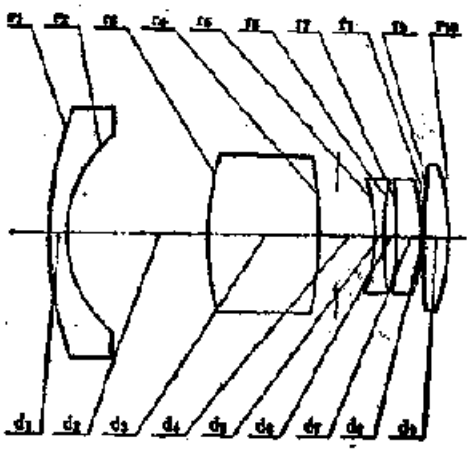
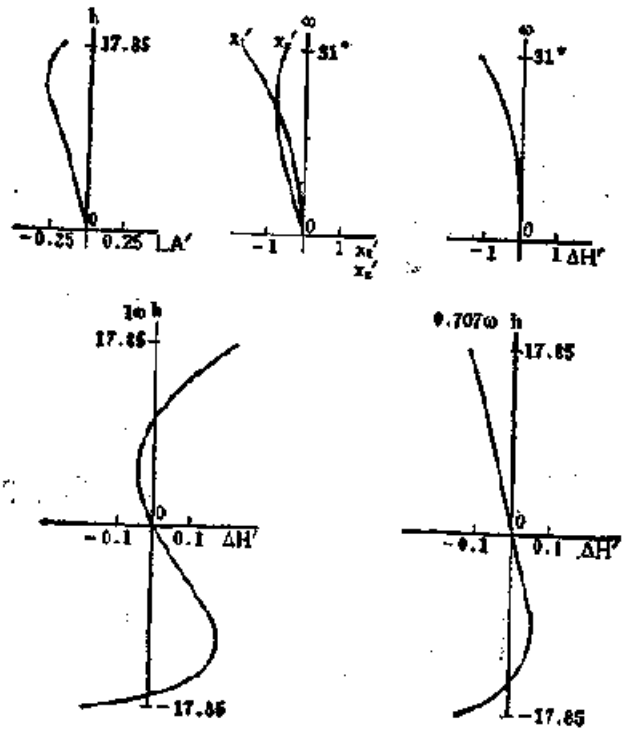


序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	140.10	6.0	1.51454	54.6	6	119.00	4.0		
2	47.50	52.0			7	−146.50	10.5	1.71300	53.9
3	82.50	42.3	1.74443	49.4	8	− 67.00	0.1		
4	−135.00	21.0*			9	279.67	9.4	1.62041	60.3
5	− 59.50	3.5	1.72825	28.3	10	− 91.15			

21.0* = 10.0 + 11.9

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1∞)
	− 0.0551	− 0.0069	0.0175	− 0.1628	− 0.4129	60.1	− 1.9%
h 或 ω %	LA′	ΔH′	x_t	x_s	$x_t - x_s$	K_{T1}	$K'_{T0.7}$
100	− 0.219	− 1.161	− 1.816	− 0.595	− 1.221	0.022	0.120
70	− 0.286	− 0.456	− 0.861	− 0.907	0.046	− 0.125	− 0.013



编号：C3-02-015

广　角　物　镜

E.F.L＝100　　B.F.L＝31.65　　FNo.＝4　　F.A.＝±40°

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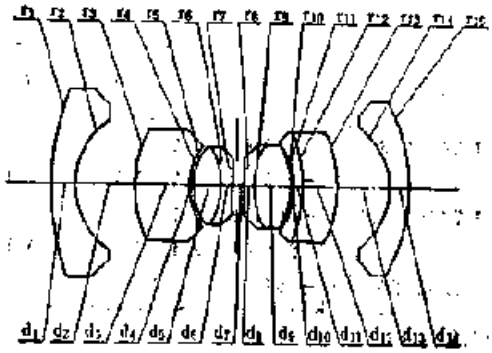
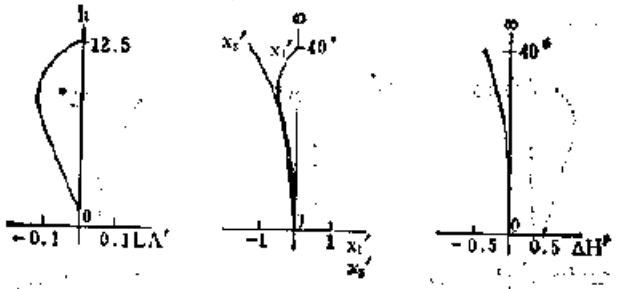
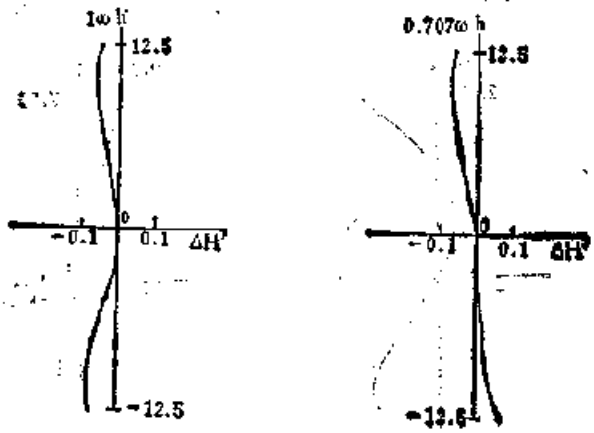


序号	r	d	n_d	ν_d	序号	r	d	n_d	ν_d
1	185.00	15.00	1.55232	63.5	9	42.00	24.00	1.65830	57.3
2	49.00	30.30			10	−46.50	2.00		
3	71.00	35.00	1.74400	44.8	11	−39.15	5.00	1.71735	29.5
4	39.25	1.20			12	−100.00	22.00	1.71300	53.8
5	40.95	19.00	1.67790	55.2	13	−65.91	33.00		
6	−48.30	7.10	1.57500	41.5	14	−45.30	12.00	1.71300	53.8
7	5000.00	6.24*			15	−105.06			
8	∞	6.00	1.51680	64.2					

6.24* = 3.00 + 3.24

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	III	QP(1ω)
	−0.0140	−0.0093	−0.0142	−0.0125	−0.0694	83.9	−0.5%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{To.7}'$
100	−0.003	−0.410	0.017	−1.410	1.427	−0.054	−0.063
70	−0.126	−0.126	−0.472	−0.586	0.114	0.009	−0.022





编号：03-02-016

大孔径长后截距广角镜头

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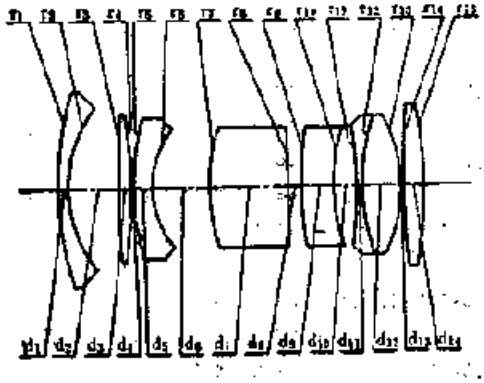
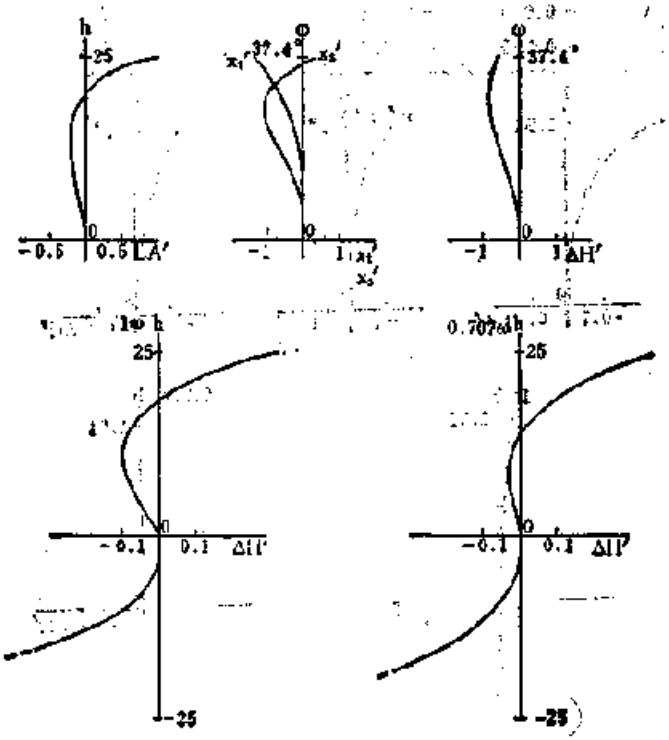
E.F.L＝100　　B.F.L＝136.16　　FNo.＝2　　F.A.＝±37.4°



序号	r	d	n	ν	序号	r	d	n	ν
1	228.1	6.9	1.65160	58.6	9	252.6	22.6	1.80518	25.4
2	91.5	34.7			10	113.9	15.7		
3	771.9	9.6	1.80740	35.4	11	−357.9	4.2	1.80518	25.4
4	−334.4	0.4			12	115.6	26.2	1.74100	52.7
5	211.7	14.0	1.54771	62.9	13	−101.2	0.4		
6	60.9	37.6			14	513.8	14.5	1.81554	44.5
7	123.5	54.8*	1.78800	47.5	15	−288.3			
8	−3915.5	3.2							

54.8*＝40.0＋14.8

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	OP(1ω)
	−0.142	−0.082	0.113	−0.441	−1.093	75.1	−0.76%
h 或 ω%	LA′	ΔH′	x_t^s	x_s^s	$x_t^s - x_s^s$	K_{T1}^s	$K_{T0.7}^s$
100	0.076	−0.570	−1.440	0.330	−1.770	−0.027	−0.302
70	−0.152	−0.761	−0.358	−1.091	0.733	−0.235	−0.123



编号: 03-02-017

反远距型广角物镜

E.F.L=15.4　　B.F.L=38.06　　FNo.=5　　F.A.=±50°**

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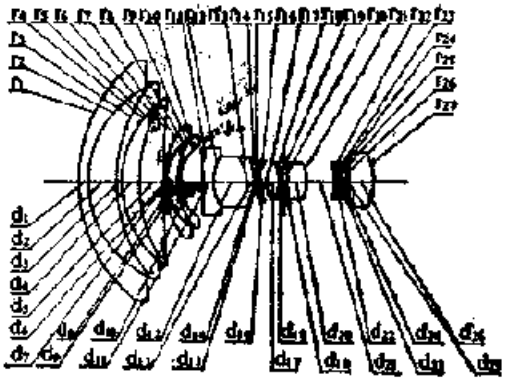
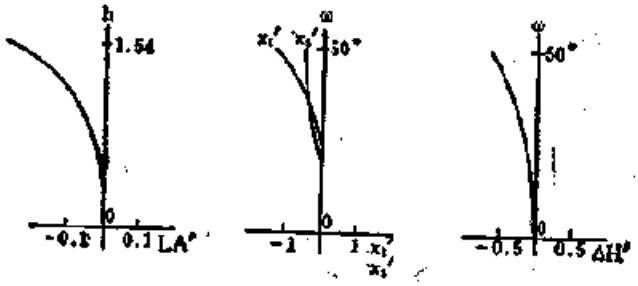
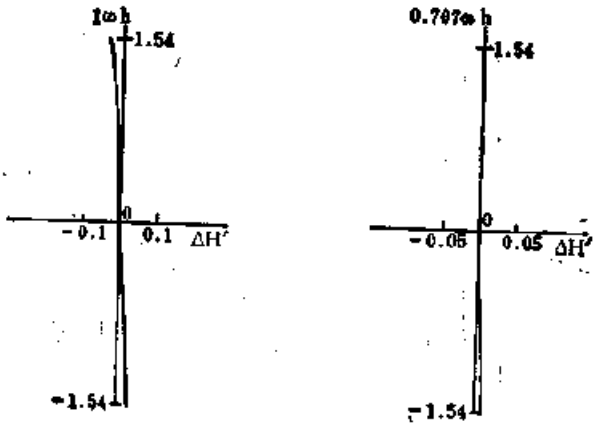


序号	r	d	n_d	ν_d	序号	r	d	n_d	ν_d
1	46.00	3.10	1.73200	53.2	15	20.00	1.00	1.69680	55.6
2	30.90	7.40			16	8.50	2.30		
3	43.60	2.00	1.73200	53.2	17	12.80	3.80	1.58065	37.1
4	30.60	4.80			18	-14.00	1.00	1.58313	59.3
5	45.80	7.80	1.70000	47.9	19	∞	1.70*		
6	310.50	0.10			20	∞	5.62	1.58065	37.1
7	24.20	1.00	1.84110	43.3	21	-12.10	2.30		
8	14.90	3.00			22	-13.80	0.65	1.88074	23.1
9	20.90	1.00	1.84110	43.3	23	94.30	0.65		
10	18.90	6.60			24	-77.00	2.00	1.44238	67.2
11	-255.00	2.80	1.84110	43.3	25	-10.80	0.10		
12	12.20	10.00	1.54072	47.2	26	466.00	7.60	1.52000	70.1
13	-10.80	2.00	1.53996	59.7	27	-19.68			
14	-18.90	0.20							

1.70* = 6.85 + 0.85

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	-0.0027	0.0038	-0.0008	-0.0155	-0.1157	18.5	-3.5%
h或ω%	LA'	ΔH'	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T1.7}'$
100	-0.286	-0.550	-1.264	-0.487	-0.777	-0.0025	-0.0009
70	-0.083	-0.329	-0.267	-0.377	0.110	0.0012	0.0012

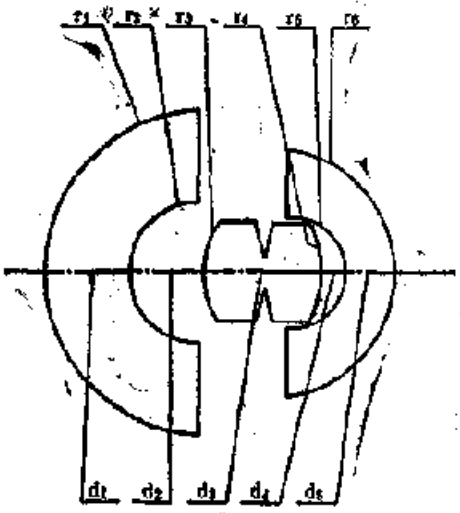




编号: 03-02-018

三 片 式 广 角 物 镜

E.F.L= 1　　B.F.L=0.80299　　FNo.= 8　　F.A.= ±50°**



序号	r	d	n_d	ν_d	序号	r	d	n_d	ν_d
1	0.7760	0.5319	1.80518	25.46	4	-0.5572	0.1803		
2	0.2562	0.1802			5	-0.2419	0.3491	1.80518	25.46
3	0.3779	0.5099*	1.71300	53.89	6	-0.5989			

0.50990* = 0.25495 + 0.25495

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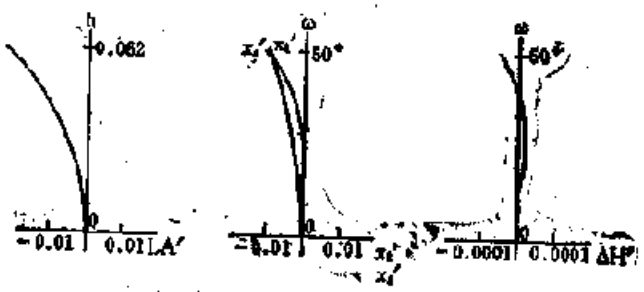
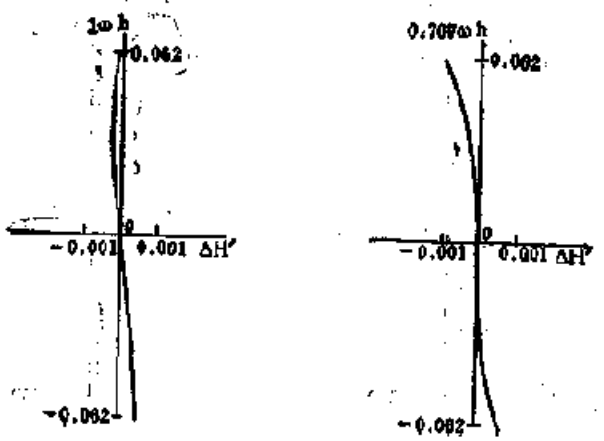
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	-0.000170	-0.000039	-0.000064	0.000009	0.000093	1.2	-0.004%
h 或 ω%	LA'	ΔH'	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	-0.024	-0.00005	-0.010	-0.011	0.001	0.00026	0.00013
70	-0.012	0.00001	-0.005	-0.001	-0.004	-0.00022	-0.00012





编号：03-02-019

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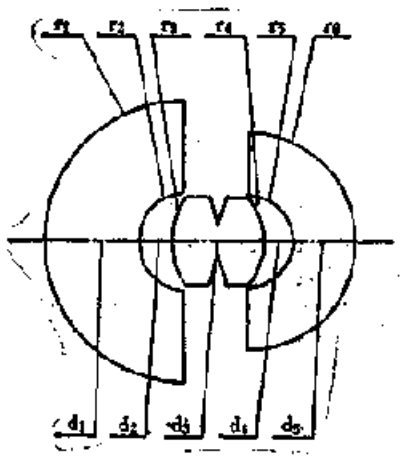
三片式超广角物镜

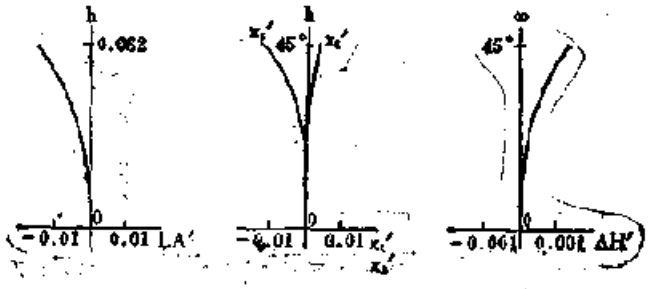
E.F.L＝1　　B.F.L＝0.5265　　FNo.＝8　　F.A.＝±45°

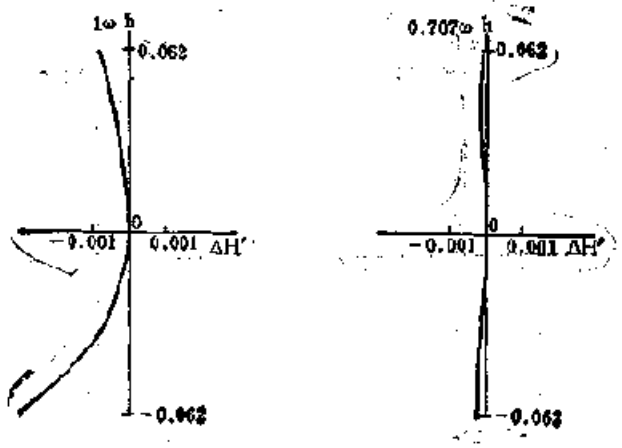


序号	r	d	n_d	ν_d	序号	r	d	n_d	ν_d
1	0.6324	0.3286	1.78470	26.08	4	－0.4244	0.0919		
2	0.2750	0.2692			5	－0.2073	0.1965	1.78470	26.08
3	0.3327	0.4714*	1.64250	57.96	6	－0.4805			

0.4714* = 0.2357 + 0.2357

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	Hi	QP(1ω)
	－0.000094	0.000029	－0.000012	0.000023	0.000132	1	0.13%
h或ω%	LA′	ΔH′	x_1'	x_5'	$x_1'-x_5'$	$K\phi_1$	$K_{To.7}$
100	－0.0143	0.0013	0.0026	－0.0127	0.0153	－0.0018	－0.0009
70	－0.0066	0.0005	0.0009	－0.0020	0.0029	－0.0001	－0.0001





编号：03-02-020

广　角　物　镜

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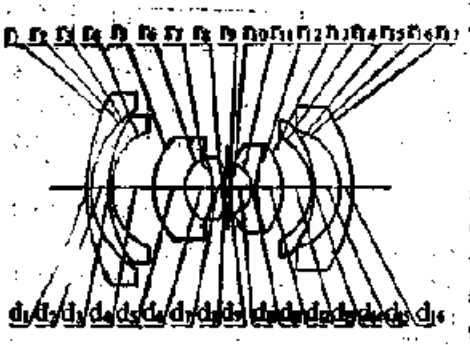
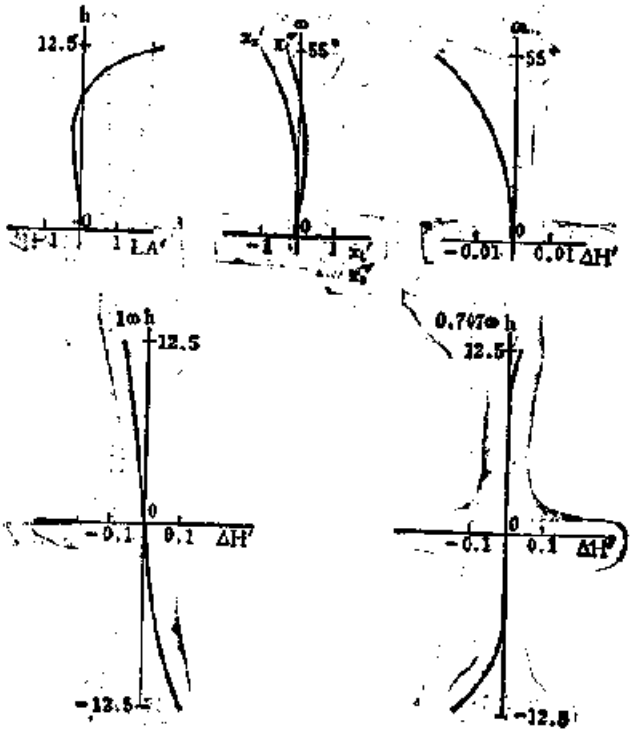
E.F.L＝100　　B.F.L＝28.98　　FNo.＝4　　F.A.＝±58°



序号	r	d	n_d	ν_d	序号	r	d	n_d	ν_d
1	168.25	4.53	1.51680	64.2	10	−1385.90	18.63	1.55232	63.5
2	74.41	14.14			11	− 22.00	3.78	1.63636	35.3
3	99.80	3.96	1.52054	69.7	12	81.47	22.46	1.74300	33.3
4	53.18	36.17			13	− 58.62	22.91		
5	52.21	26.82	1.74400	44.8	14	− 48.76	3.96	1.53172	48.8
6	29.33	22.80	1.65100	41.9	15	− 83.50	22.29		
7	− 55.22	5.50	1.69308	35.7	16	− 51.42	10.30	1.64050	60.1
8	31.80	4.30	1.64350	47.8	17	−111.90			
9	926.20	3.60*							

3.60* = 1.90 + 2.00

	ΣS_1	ΣS_2	ΣS_4	ΣS_6	ΣS_5	HI	QP(1ω)
	− 0.0417	− 0.0129	− 0.0042	0.0269	− 0.0128	142.8	− 0.015%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{t1}'	$K_{t0.7}'$
100	2.096	− 0.022	− 0.379	− 1.110	0.731	0.034	0.0027
70	− 0.086	− 0.002	0.058	− 0.321	0.380	− 0.063	− 0.0104



编号, 03-02-021

广　角　物　镜

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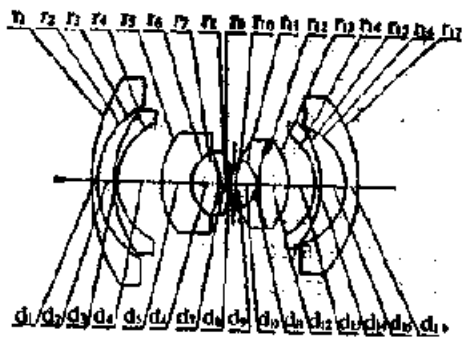
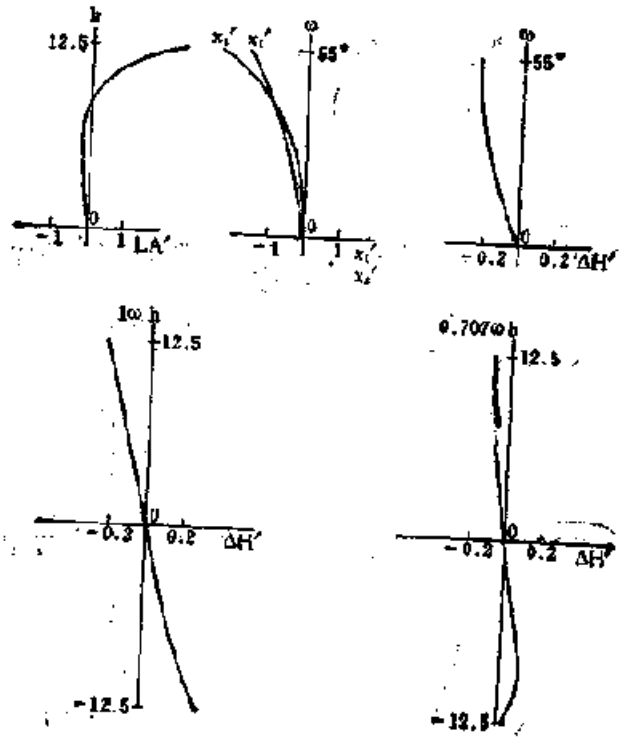
E.F.L=100　　B.F.L=30.8　　FNo.=4　　F.A.=±55°



序号	r	d	n_d	ν_d	序号	r	d	n_d	ν_d
1	163.25	4.53	1.51680	64.2	10	-1385.90	10.00	1.755232	63.5
2	74.41	14.14			11	-21.78	1.00	1.63636	35.3
3	99.80	3.96	1.52054	69.7	12	80.00	25.80	1.74300	35.3
4	53.18	36.17			13	-57.65	22.91		
5	62.21	26.82	1.74400	44.8	14	-49.76	3.96	1.52375	55.3
6	29.33	22.80	1.65100	41.9	15	-83.25	21.00		
7	-55.22	6.80	1.58308	36.7	16	-61.42	10.30	1.664050	60.1
8	32.50	3.00	1.64350	47.8	17	-113.90			
9	972.65	3.90*							

3.90* = 1.90 + 2.00

	ΣS_I	ΣS_{II}	ΣS_{III}	ΣS_{IV}	ΣS_V	HI	QP(Iω)
	-0.0398	-0.0115	-0.0158	0.0176	-0.1058	142.8	-0.17%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{f1}'	$K_{f0.7}'$
100	2.602	-0.249	-1.613	-2.562	0.949	0.041	0.0140
70	0.918	-0.219	-1.059	-0.865	-0.194	-0.036	0.0008



编号：03-02-022

反远距型超广角照相机镜头

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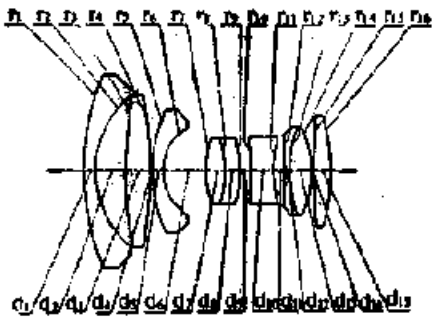
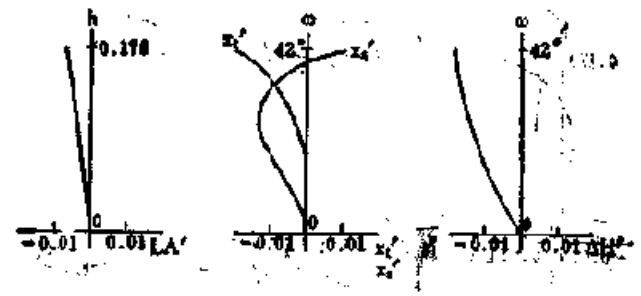
E.F.L＝1　　B.F.L＝1.5597　　FNo.＝2.8　　F.A.＝±42°

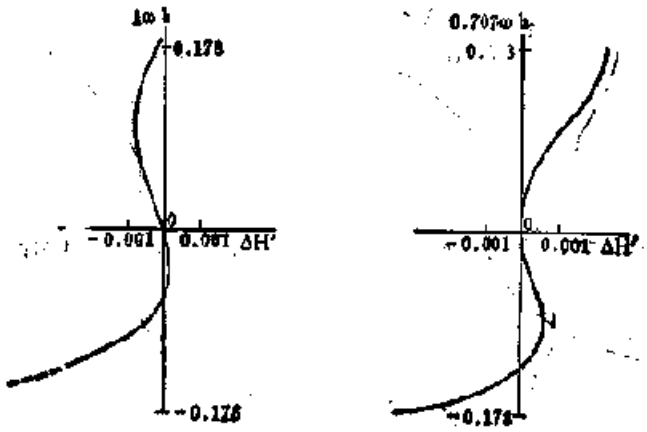


序号	r	d	n_d	ν_d	序号	r	d	n_d	ν_d
1	2.6089	0.1125	1.62041	60.3	9	−1.4542	0.1042*		
2	0.8958	0.2625			10	−3.5417	0.2268	1.78470	
3	3.7500	0.2292	1.62041	60.3	11	1.3500	0.0979		
4	−3.7500	0.0042			12	−5.0000	0.0417	1.78470	26.1
5	1.2500	0.1125	1.62041	60.3	13	1.1729	0.2259	1.62041	60.3
6	0.4583	0.4083			14	−0.8333	0.0042		
7	1.0681	0.1667	1.62004	36.3	15	8.0000	0.1458	1.74400	44.9
8	−0.7742	0.1250	1.51823	59.0	16	−1.9423			

0.1042* = 0.0500 + 0.0542

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00095	0.00116	0.00047	−0.00282	−0.01258	0.9	−2.2%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{0.7}$
100	−0.00685	−0.019	−0.0210	0.0100	−0.0310	−0.00410	−0.00150
70	−0.00493	−0.015	−0.0045	−0.0142	0.0097	−0.00053	0.00100





编号：03-02-023

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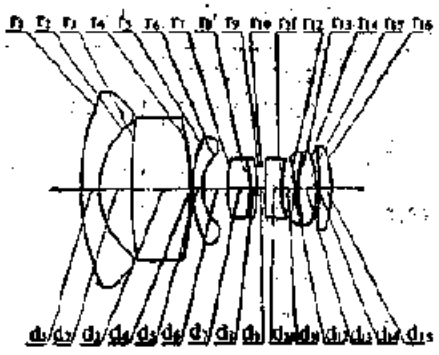
反远距型广角照相机镜头

E.F.L＝1.027　　B.F.L＝1.548　　FNo.＝2.8　　F.A.＝±40°

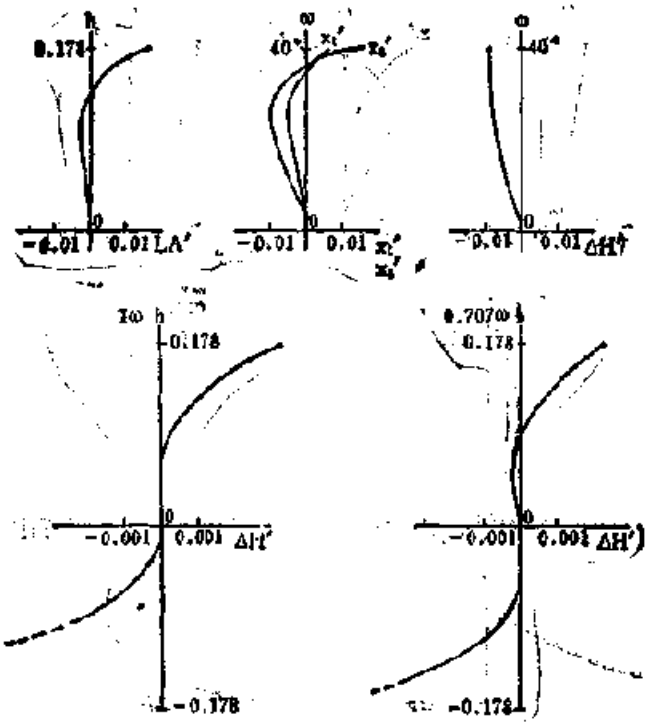


序号	r	d	n_d	ν_d	序号	r	d	n_d	ν_d
1	2.0873	0.180	1.62041	60.3	9	−1.1709	0.088*		
2	0.7842	0.300			10	−50.0000	0.160	1.51823	59.0
3	4.6000	0.552	1.62280	56.9	11	0.9280	0.112		
4	−2.9420	0.604			12	−0.9200	0.028	1.78470	25.1
5	1.1160	0.092	1.58913	61.2	13	1.1768	0.180	1.66790	55.5
6	0.4520	0.232			14	−0.7440	0.004		
7	0.8400	0.200	1.57501	41.3	15	−8.8000	0.104	1.76684	46.2
8	−0.8400	0.054	1.56248	60.9	16	−0.9616			

0.088* = 0.044 + 0.044

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00120	0.00012	0.00038	−0.00298	−0.00313	0.86	−1.04%

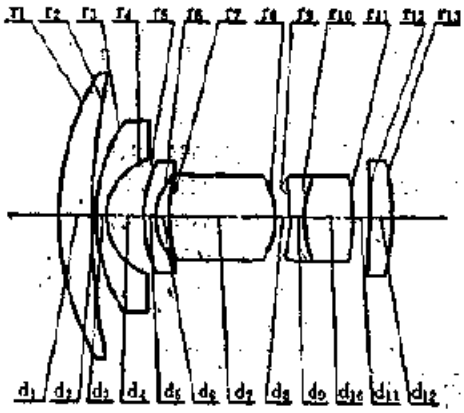
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{H0.7}'$
100	0.0182	−0.0089	0.0060	0.0118	−0.0058	−0.00560	−0.00220
70	−0.0022	−0.0087	−0.0049	−0.0107	0.0058	−0.00210	−0.00045



编号：03-02-024

反远距型广角镜头

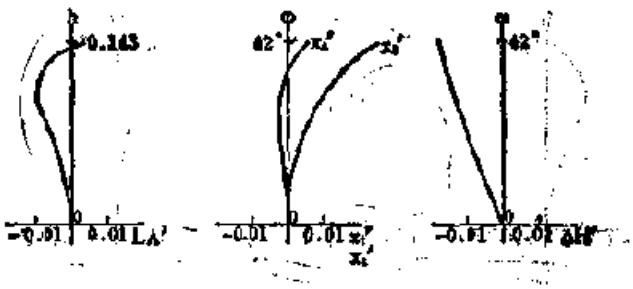
E.F.L＝1.013　　B.F.L＝1.645　　FNo.＝3.5　　$F.\overline{A}.=\pm 42^{\circ}$

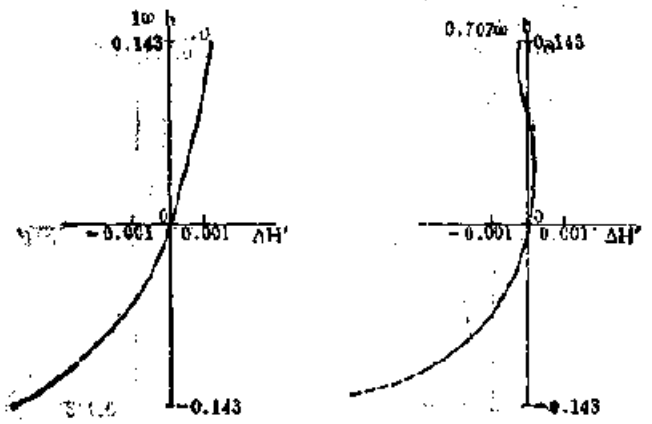


序号	r	d	n	ν	序号	r	d	n	ν
1	1.4862	0.1861	1.7200	42.1	8	−0.4401	0.0745*		
2	3.6691	0.0047			9	−1.3246	0.0931	1.8467	23.9
3	0.9039	0.0698	1.6180	63.4	10	0.6474	0.2688	1.6166	36.6
4	0.3214	0.2100			11	−0.8825	0.0930		
5	0.7290	0.0698	1.7130	54.0	12	−5.8585	0.1220	1.6177	49.8
6	0.3283	0.0629			13	−1.6938			
7	0.9365	0.3915	1.5955	39.2					

$0.0745^{*}=0.0300+0.0445$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00093	0.00034	0.00056	−0.00073	−0.00974	0.91	−2%
像高ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	$K_{1\omega}'$	$K_{0.7\omega}'$
100	−0.0020	−0.0185	0.0259	0.0047	0.0212	−0.00150	−0.00066
70	0.0065	−0.0129	0.0106	−0.0023	0.0129	−0.00390	−0.00096

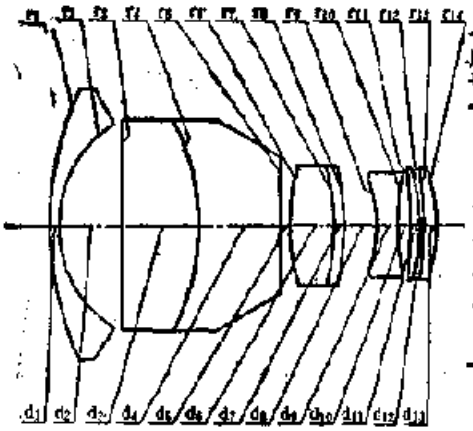




编号：03-02-025

反远距型广角镜头

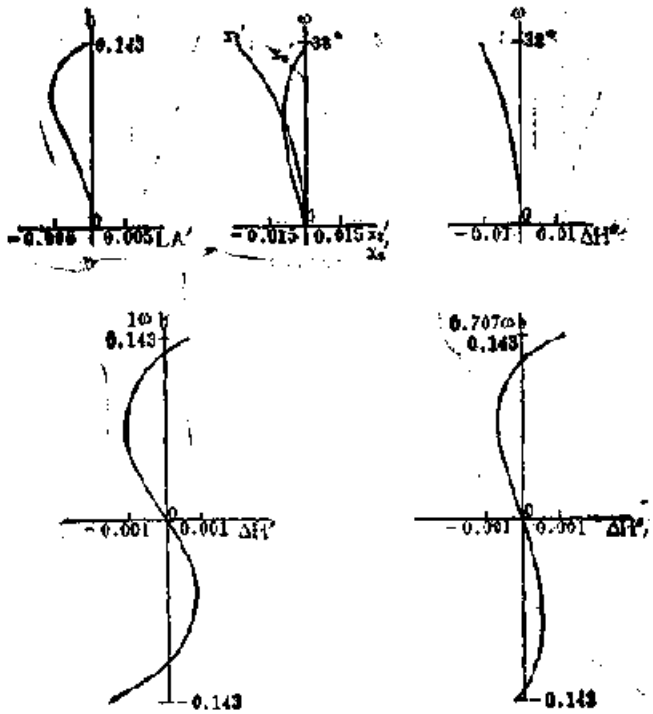
E.F.L＝1　　B.F.L＝1.28　　FNo.＝8.5　　F.A.＝±38°



序号	r	d	n	ν	序号	r	d	n	ν
1	1.3589	0.0456	1.6775	55.4	8	−1.4304	0.1496*		
2	0.6306	0.2834			9	−0.6033	0.1084	1.8727	32.2
3	∞	0.3471	1.7106	43.3	10	1.1719	0.0469		
4	−1.1292	0.3690	1.5111	60.8	11	−2.2307	0.0469	1.7200	50.3
5	∞	0.0400			12	−0.7088	0.0039		
6	0.6360	0.1965	1.7040	53.3	13	−2.0247	0.0500	1.6214	61.2
7	−0.8252	0.0300	1.6263	35.8	14	−0.6803			

0.1496* = 0.0700 + 0.0796

	ΣS_I	ΣS_{II}	ΣS_{III}	ΣS_{IV}	ΣS_V	HI	QP(1ω)
	−0.000715	0.000107	−0.000025	−0.000908	−0.005040	0.76	−1.5%
h 或 ω %	LA′	ΔH′	x_t^s	$\bar{x}_s^s$	$x_t^s - x_s^s$	K_{T1}^s	$K_{T0.7}^s$
100	−0.00031	−0.0113	−0.0297	0.0018	−0.0315	−0.00044	−0.00038
70	−0.00533	−0.0067	−0.0132	−0.0089	−0.0043	0.00049	−0.00001



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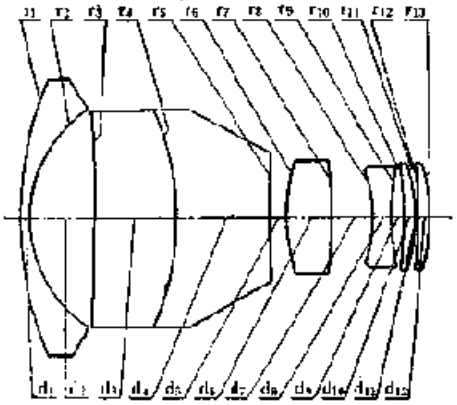
编号: 03-02-026

反远距型广角镜头

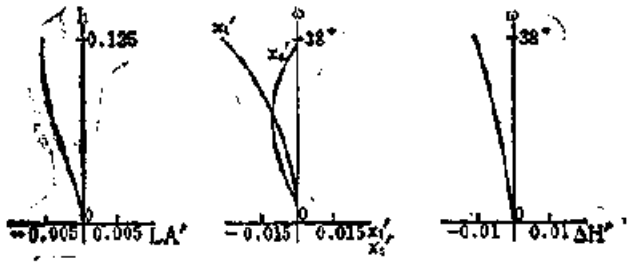
E.F.L=0.994　　B.F.L=1.272　　FNo.=4　　F.A.=±38°

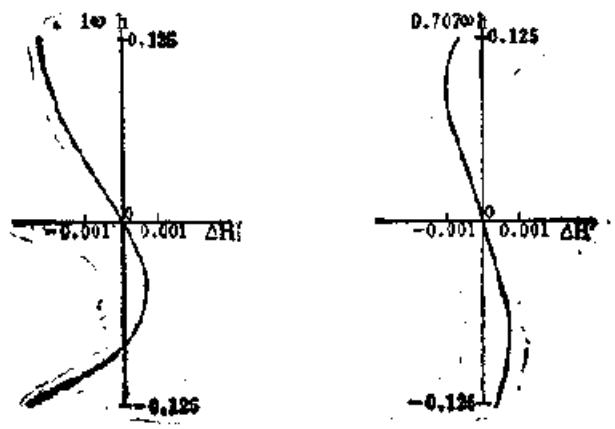


序号	r	d	n	ν	序号	r	d	n	ν
1	1.5241	0.0500	1.6204	60.3	8	-0.6060	0.0875	1.7147	29.4
2	0.5722	0.2819			9	1.3904	0.0400		
3	-13.5100	0.3708	1.7200	50.3	10	-2.4003	0.0560	1.7200	50.3
4	-1.1687	0.4041	1.5176	53.5	11	-0.6681	0.0030		
5	23.1750	0.0779			12	-2.4010	0.0550	1.6775	55.4
6	0.9035	0.1981	1.7200	50.3	13	-0.7370			
7	-1.8891	0.1912*							

0.1912* = 0.0956 + 0.0956

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	-0.000450	0.000113	0.000008	-0.000782	-0.004571	0.78	-1.4%
h 或 ω %	LA′	ΔH′	x_t^*	x_s^*	$x_t^* - x_s^*$	K_{T1}^*	$K_{T0.7}^*$
100	-0.0056	-0.0110	-0.0325	0.0010	-0.0335	-0.0024	-0.0011
70	-0.0053	0.0068	-0.0138	-0.0098	-0.0040	-0.00013	-0.00013





编号：03-02-027

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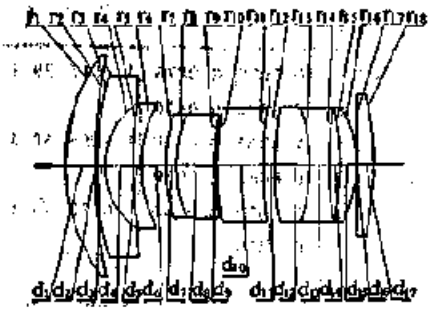
反远距型超广角镜头

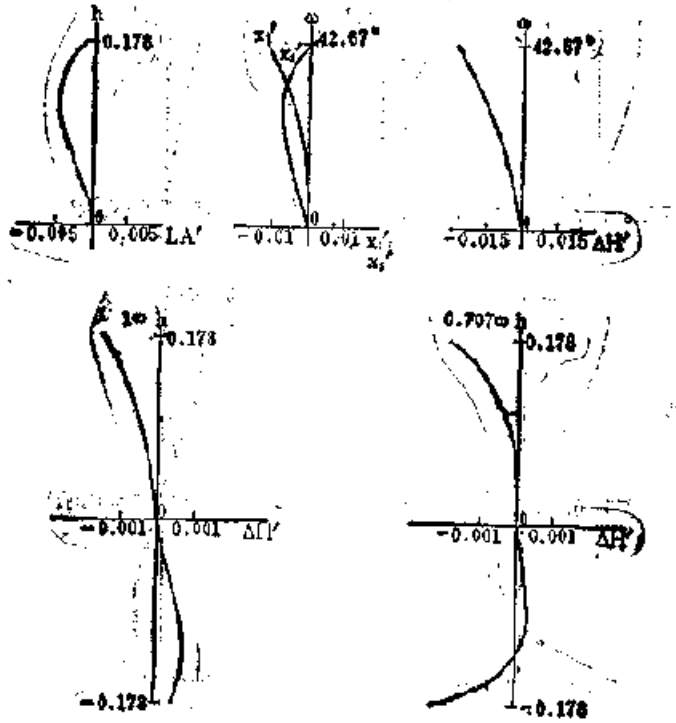
$E_kF.L=1$　　B.F.L=1.448　　FNo.=2.8　　F.A.=±42.67°



序号	r	d	n	v	序号	r	d	n	v
1	0.8352	0.1290	1.7200	50.4	10	1.7459	0.2058	1.6237	46.9
2	2.5729	0.0038			11	3.6216	0.0516*		
3	1.5009	0.0387	1.6180	63.4	12	1.5649	0.1569	1.7620	40.2
4	0.3300	0.1306			13	−0.8088	0.0889	1.8052	25.4
5	1.5990	0.0387	1.6485	53.0	14	1.4895	0.0472		
6	0.9739	0.1095			15	−1.3814	0.0735	1.6968	55.6
7	0.7756	0.0395	1.6676	41.9	16	−0.5552	0.0038		
8	0.5951	0.1753	1.6261	39.1	17	28.8360	0.0752	1.7340	51.5
9	1.9263	0.0082			18	−1.5345			

0.0516* = 0.0300 + 0.0216

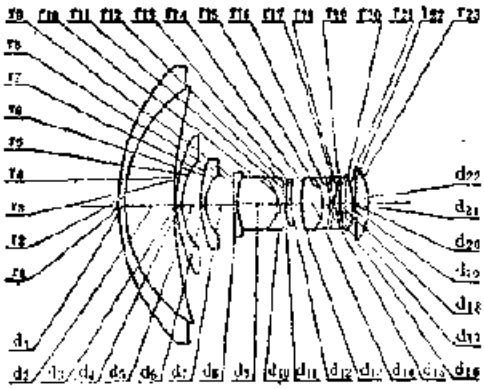
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00107	0.00052	0.00013	−0.00139	−0.01168	0.91	−3.1%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T_1}'	$K_{T_{0.7}}'$
100	−0.00059	−0.028	−0.0120	0.0010	−0.0130	−0.00056	−0.00006
70	−0.00467	−0.015	−0.0043	−0.0075	0.0032	−0.00221	−0.00082



编号：03-02-028

广　角　物　镜

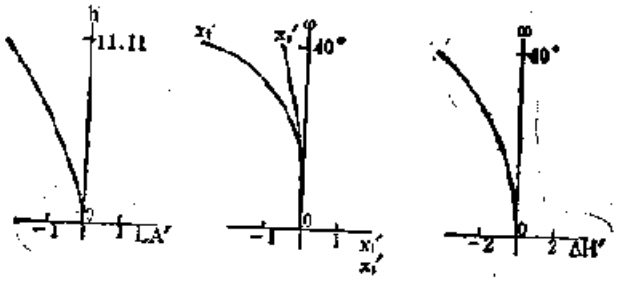
E.F.L＝100　　B.F.L＝231.1　　FNo.＝4.5　　F.A.＝±40°**

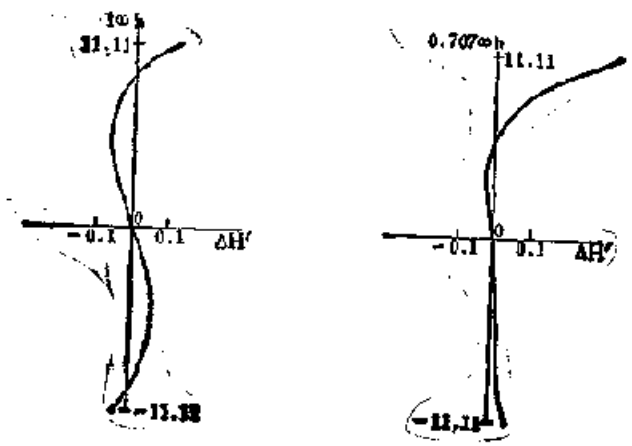


序号	r	d	n	ν	序号	r	d	n	ν
1	243.90	7.32	1.78470	26.1	13	121.95	15.24*		
2	176.83	63.40	1.69680	55.6	14	121.95	28.66	1.62588	35.8
3	539.63	0.61			15	−39.63	6.10	1.62230	53.2
4	181.70	4.88	1.69680	55.6	16	−71.95	2.44		
5	76.22	24.39			17	−68.90	3.66	1.80518	25.5
6	128.05	6.10	1.69680	55.6	18	98.78	6.10	1.62041	60.3
7	48.78	34.15			19	280.18	3.66		
8	614.63	6.10	1.80454	39.5	20	−283.54	10.06	1.51728	69.6
9	59.15	46.95	1.58065	37.1	21	−76.83	0.61		
10	−40.85	12.20	1.58913	61.2	22	−1371.95	14.02	1.51728	69.6
11	−137.20	0.61			23	−86.22			
12	182.93	4.27	1.69680	55.6					

15.24* = 9.00 + 6.24

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	III	QP(1ω)
	−0.0940	0.0480	−0.0229	−0.0000	−0.8226	83.9	−5.8%
h 或 ω%	LA′	ΔH′	x_t^s	x_s^s	$x_t^s - x_s^s$	K_{T1}^s	$K_{T0.7}^s$
100	−2.4410	−4.8390	−2.9760	−0.6900	−2.2770	0.0305	−0.0126
70	−1.6050	−1.7550	−0.6210	−0.2550	−0.3660	0.1925	0.0297

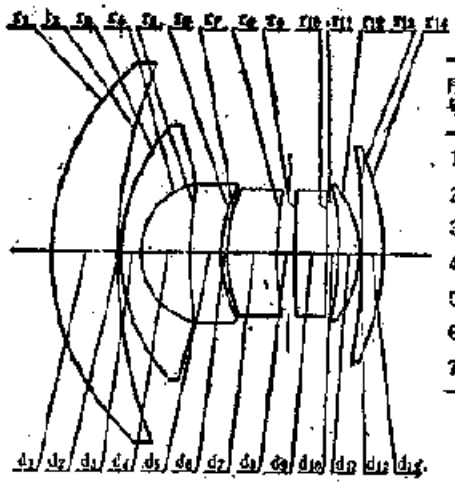




编号：03-02-029

超广角摄影物镜

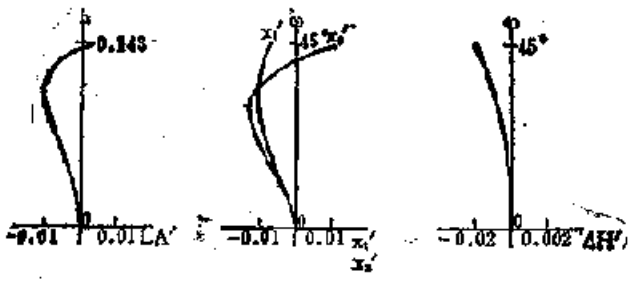
E.F.L=1　　B.F.L=1.198　　FNo.=3.5　　F.A.=±45°

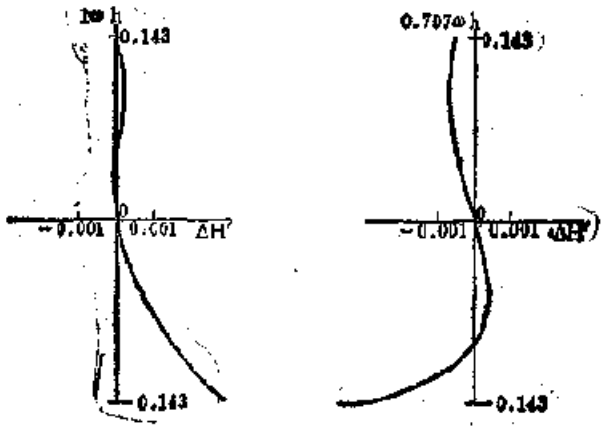


序号	r	d	n	v	序号	r	d	n	v
1	0.7841	0.2078	1.7234	38.0	8	1.1836	0.0482*		
2	1.5939	0.0039			9	7.6842	0.1059	1.6204	60.3
3	0.5678	0.0643	1.4875	70.0	10	-7.6842	0.0367		
4	0.2137	0.1607			11	-0.8872	0.0627	1.4875	70.0
5	1.3937	0.0964	1.8052	25.5	12	-0.3130	0.0039		
6	0.4211	0.0161			13	-3.9127	0.0702	1.4875	70.0
7	0.5244	0.1607	1.8061	40.7	14	-0.7443			

$0.0482^{*} = 0.0241 + 0.0241$

	$\Sigma S_1'$	ΣS_2	ΣS_3	ΣS_4	ΣS_5	III	QP(1ω)
	-0.00128	0.00118	-0.00056	-0.00188	-0.00457	1	-2%
h 或 ω%	LA′	ΔH′	x_1'	x_2'	$x_1'-x_2'$	K_{T1}'	$K_{T0.7}'$
100	0.00436	-0.0199	-0.0077	0.0115	-0.0192	0.00147	0.00099
70	-0.00992	-0.0080	-0.0108	-0.0134	0.0025	-0.00203	-0.00028





编号：03-02-030

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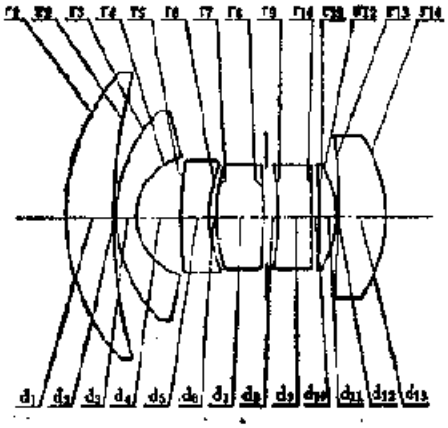
广角摄影物镜

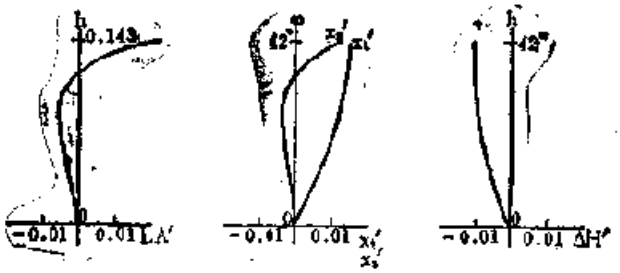
E.F.L＝1.027　　B.F.L＝1.343　　FNo.＝3.5　　F.A.＝±42°**

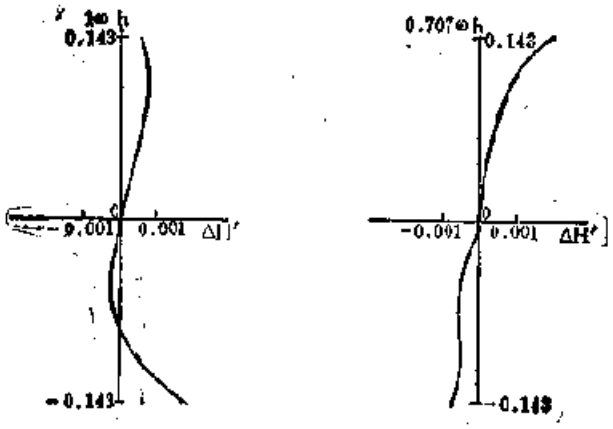


序号	r	d	n	v	序号	r	d	n	v
1	0.8135	0.2015	1.6201	49.8	8	−2.2049	0.0549*		
2	2.1624	0.0039			9	−0.8916	0.1362	1.8052	25.5
3	0.5602	0.0731	1.4875	70.0	10	54.1588	0.0244		
4	0.2336	0.1830			11	−2.0378	0.0654	1.4875	70.0
5	3.8462	0.1099	1.8052	25.5	12	−0.3698	0.0039		
6	0.4544	0.0182			13	−3.2107	0.1830	1.5101	63.4
7	0.6476	0.1830	1.8052	25.5	14	−0.5241			

0.05490* = 0.02745 + 0.02745

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP'(1ω)
	−0.00108	0.00082	0.00047	−0.00153	−0.00794	0.93	−1.2%
h 或 ω %	LA'	ΔH'	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{To.7}'$
100	0.0225	−0.0109	0.0148	0.0127	0.0021	0.00125	0.00057
70	−0.0051	−0.0093	0.0128	−0.0038	0.0166	0.00074	0.00025





编号，03-02-031

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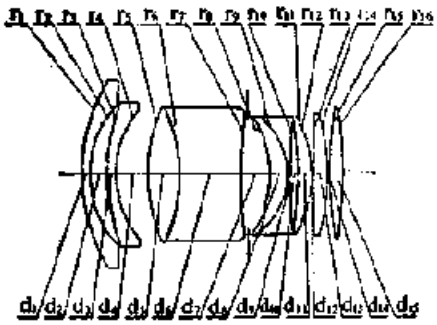
大孔径广角摄影物镜

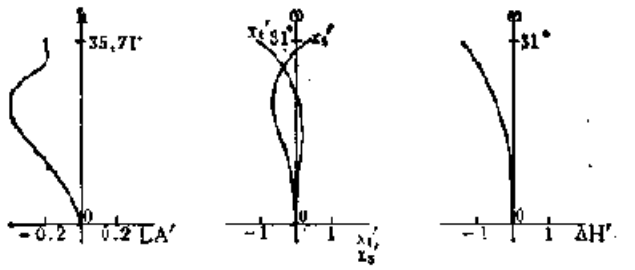
E.F.L＝100　　B.F.L＝106.44　　FNo.＝1.4　　F.A.＝±31°

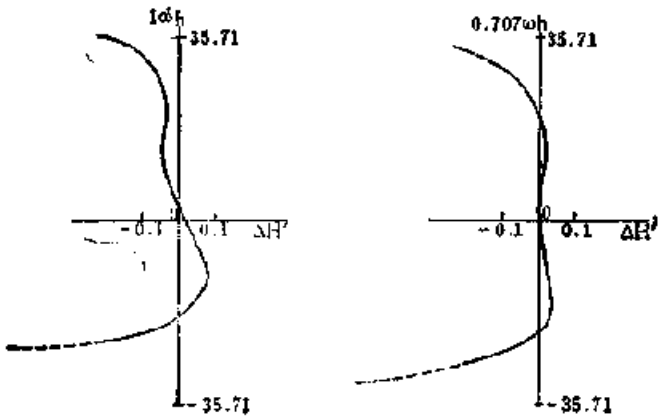


序号	r	d	n	v	序号	r	d	n	v
1	129.722	5.833	1.56883	56.0	9	−52.778	2.778	1.78470	26.1
2	71.111	12.222			10	515.056	4.722		
3	138.889	5.833	1.54814	45.9	11	−314.667	11.111	1.77250	49.5
4	78.333	24.444			12	−87.500	0.139		
5	107.778	23.611	1.80411	46.4	13	−2777.778	10.556	1.77250	49.5
6	−116.667	44.444	1.50137	56.5	14	−151.250	0.139		
7	432.031	23.222*			15	291.669	9.444	1.71300	53.9
8	−74.194	12.222	1.80411	46.4	16	−304.097			

22.222* = 7.000 + 15.222

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.501	0.199	0.192	−0.718	−1.211	60.1	−2.3%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	−0.199	−1.404	−1.121	0.357	−1.478	−2.055	−0.294
70	−0.396	−0.048	−0.052	−0.637	0.585	−0.998	−0.065





编号：03-02-032

大孔径广角摄影物镜

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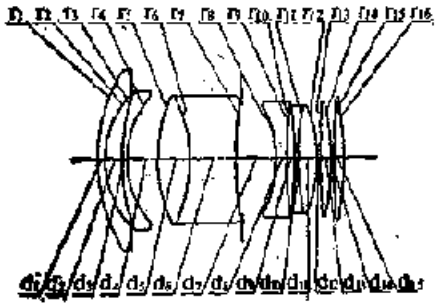
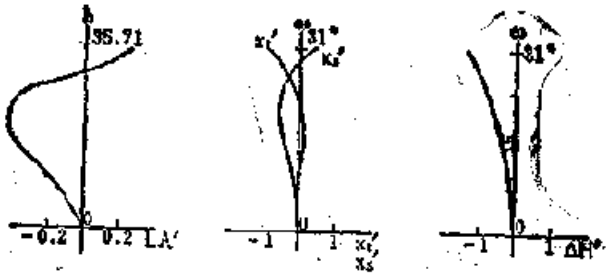
E.F.L＝100　　B.F.L＝107.77　　FNo.＝1.4　　$2\omega_{max}=\pm 31°$

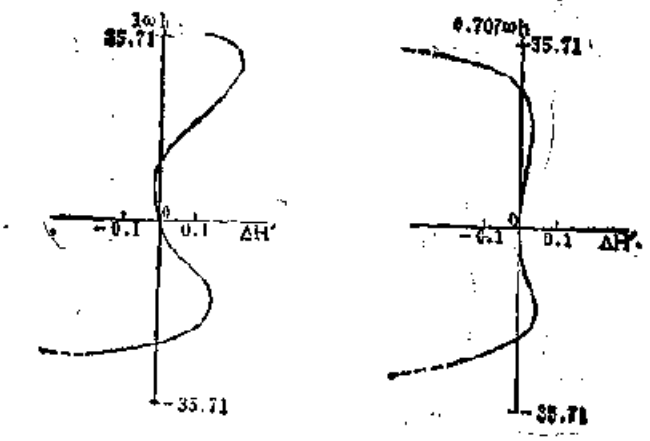


序号	r	d	n	v	序号	r	d	n	v
1	123.611	5.556	1.56883	56.0	9	888.889	5.000		
2	87.722	11.667			10	−361.111	2.778	1.78470	26.1
3	123.611	5.556	1.54814	45.9	11	166.667	16.000	1.76684	46.2
4	69.778	22.222			12	−93.056	0.278		
5	108.333	23.611	1.80411	46.4	13	1361.111	9.444	1.74443	49.4
6	−106.944	34.722	1.50137	56.5	14	−154.167	0.278		
7	333.33	28.889*			15	444.444	8.333	1.74443	49.4
8	−83.889	7.778	1.78470	26.1	16	−267.586			

$28.889^{*}=7.000+21.889$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	OP(1ω)
	−0.615	0.184	0.211	−0.717	−1.256	60.1	−2.3%
h或ω%	LA′	ΔH′	x_3'	x_5'	$x_3'-x_5'$	K_{7}'	$K_{10.7}'$
100	0.256	1.393	−1.062	0.427	1.489	1.626	−0.018
70	−0.413	−0.669	−0.010	−0.622	0.612	−1.235	−0.054





编号：03-02-033

长后截距广角物镜

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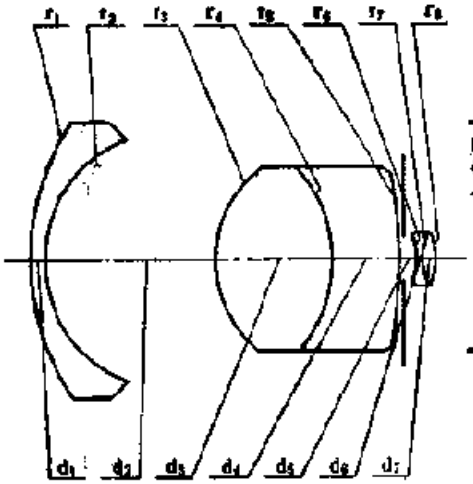
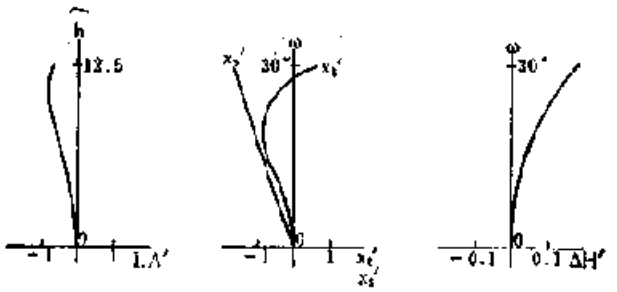
E.F.L=99.8　　B.F.L=74.5　　FNo.=4　　F.A.=±30°

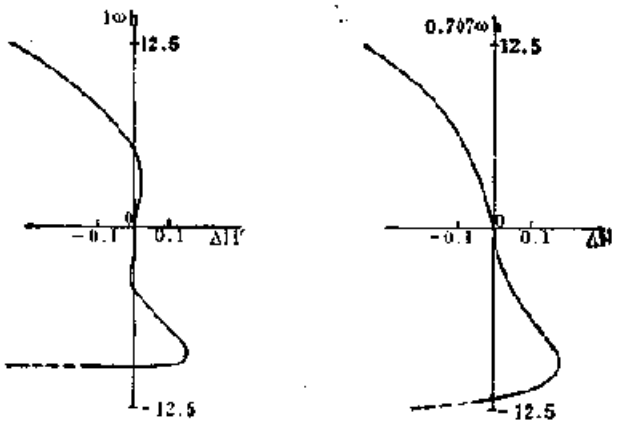


序号	r	d	n_e	ν_e	序号	r	d	n_e	ν_e
1	99.84	5.94	1.76250	31.58	5	−204.50	7.43*		
2	53.61	71.20			6	−22.80	2.36	1.62408	36.11
3	48.17	48.95	1.67133	41.64	7	214.00	4.64	1.56181	60.96
4	−58.18	27.70	1.76859	26.31	8	−27.79			

7.43* = 1.71 + 5.72

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.0534	0.0009	−0.0067	−0.0835	0.0454	57.6	0.3%
h 或 ω %	LA′	ΔH′	x_t^s	x_s^s	$x_t^s - x_s^s$	K_{T1}^s	$K_{T0.7}^s$
100	−0.725	0.170	0.621	−1.725	2.346		0.0180
70	−0.667	0.075	−0.893	−1.229	0.336	−0.4110	0.0019





编号，03-02-034

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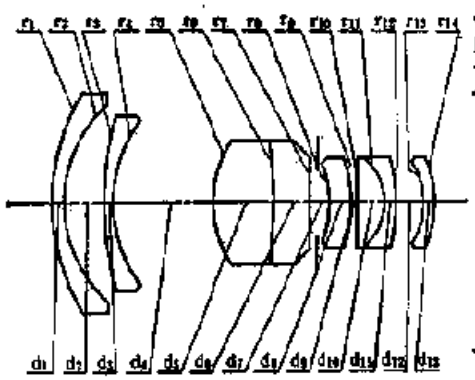
长后截距超广角物镜

E.F.L=99.8　　B.F.L=73.7　　FNo.=3.4　　F.A.=±45°

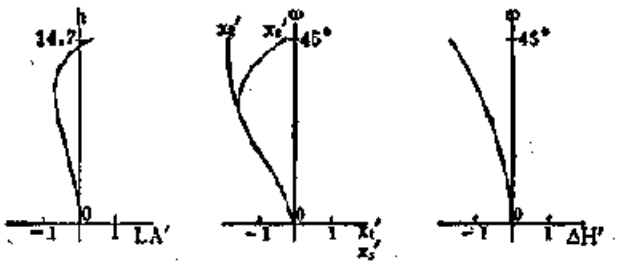


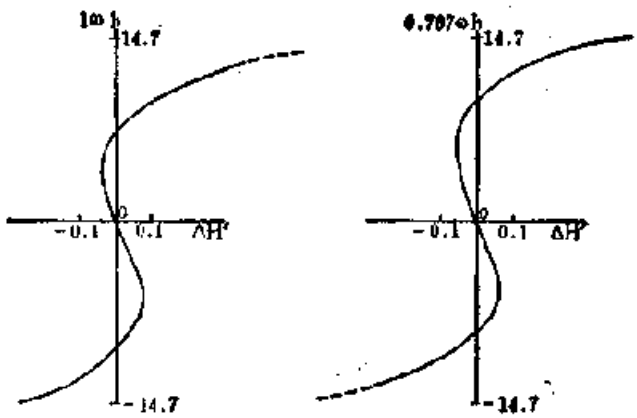
序号	r	d	n_e	ν_e	序号	r	d	n_e	ν_e
1	98.30	5.00	1.59263	40.66	8	−46.08	10.40	1.56295	46.88
2	61.23	18.30			9	−61.23	2.17		
3	133.30	5.00	1.59263	40.66	10	−1365.00	12.50	1.68585	47.92
4	63.27	47.20			11	−26.83	5.60	1.76847	26.74
5	52.00	28.30	1.74795	44.49	12	−81.37	12.50		
6	−189.30	10.20	1.76847	26.74	13	−32.98	5.00	1.56181	60.90
7	∞	9.56*			14	−49.65			

9.56* = 2.85 + 6.71

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.0886	0.0065	−0.0157	−0.1324	−0.4939	99.8	−1.8%

h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{t1}'	$K_{t0.7}'$
100	0.305	−1.761	−1.943	−0.380	−1.563	0.205	0.072
70	−0.572	−0.841	−1.737	−1.610	−0.127	−0.138	−0.027





编号：03-02-035

广 角 摄 影 物 镜

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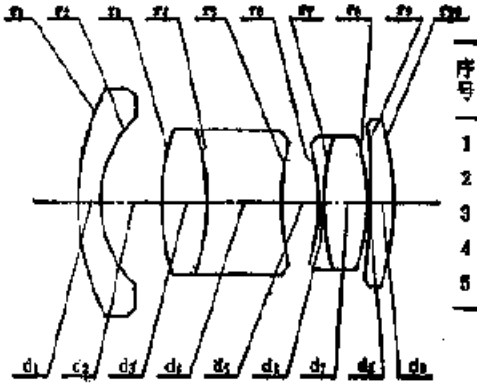
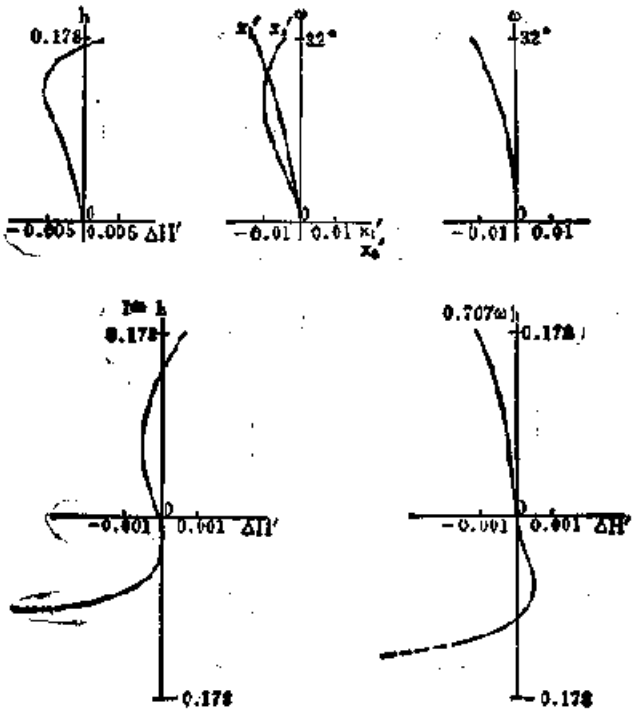
E.F.L=1　　B.F.L=1.0364　　FNo.=2.8　　F.A.=±32°



序号	r	d	nD	ν	序号	r	d	nD	ν
1	0.71390	0.06805	1.47069	67.24	6	−0.62723	0.02450	1.80518	25.46
2	0.34518	0.19462			7	0.84232	0.13338	1.73520	41.00
3	0.74096	0.13822	1.72000	50.31	8	−0.53152	0.00272		
4	−0.69863	0.23681	1.50173	56.46	9	−5.83624	0.07349	1.74400	44.90
5	0.75612	0.10888*			10	−0.89233			

0.10888* = 0.05000 + 0.05888

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00135	0.00059	0.00014	−0.00205	−0.00410	0.63	−1.8%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.00237	−0.0113	−0.0127	−0.0046	−0.0081	−0.030	−0.006
70	−0.00598	−0.0047	−0.0078	−0.0108	0.0030	−0.010	−0.001



编号：03-02-036

超 广 角 镜 头

E.F.L=1　　B.F.L=1.7821　　FNo.=3.5　　F.A.=±46°

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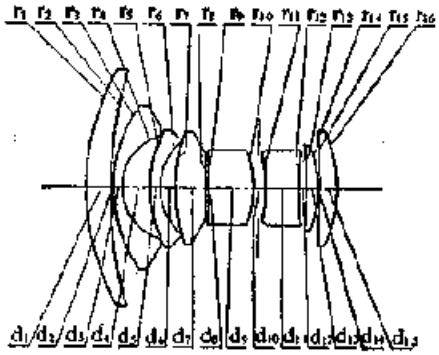
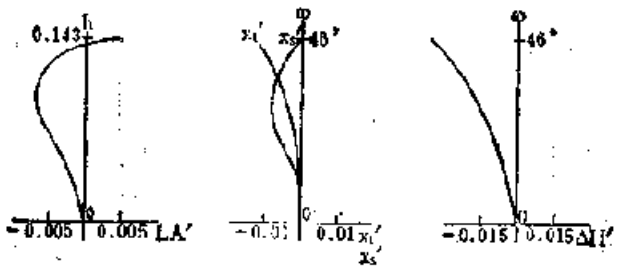
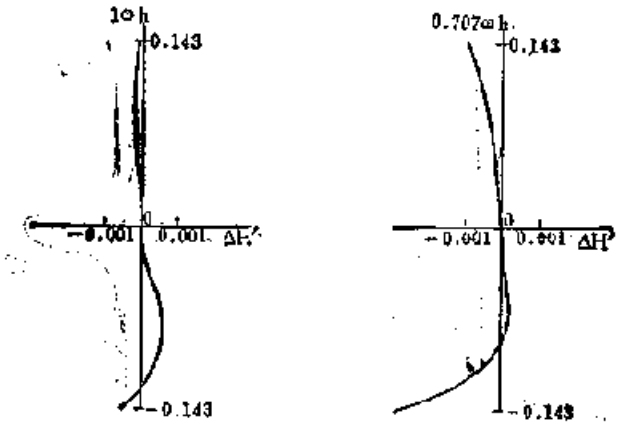


序号	r	d	n	v	序号	r	d	n	v
1	1.8748	0.1850	1.7200	d2.1	9	−28.0687	0.3550	1.6166	36.6
2	3.2590	0.0046			10	−0.6236	0.0743*		
3	0.9455	0.0696	1.6180	63.4	11	−1.0704	0.2506	1.8467	23.9
4	0.3825	0.2098			12	2.9904	0.0510		
5	0.9313	0.0696	1.7130	54	13	−2.3107	0.0849	1.6180	63.4
6	0.4333	0.1132			14	−0.7426	0.0070		
7	1.2940	0.2251	1.5955	39.2	15	−14.3292	0.1369	1.6180	63.4
8	−7.1482	0.0070			16	−0.9751			

0.0743* = 0.0343 + 0.0400

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00208	0.00109	−0.00088	−0.00087	−0.01018	1.04	−3.5%
h 或 ω%	LA′	ΔH′	x_1'	x_2'	$x_1'-x_2'$	K_{F1}'	$K_{T0.7}'$
100	0.0045	−0.0064	−0.0125	0.0003	−0.0128	−0.00029	0.00018
70	−0.0070	−0.0186	−0.0053	−0.0082	0.0029	−0.00195	−0.00036





编号：03-02-037

超 广 角 镜 头

E.F.L=1　　B.F.L=1.5976　　FNo.=2.8　　F.A.=±45°

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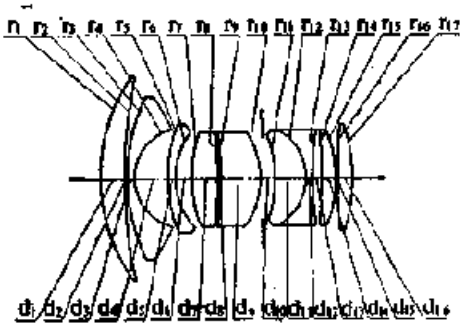
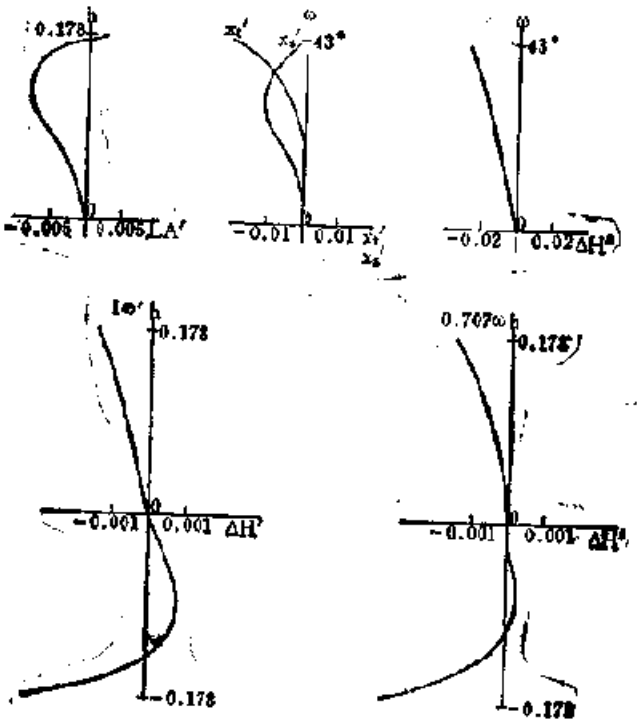


序号	r	d	n	v	序号	r	d	n	v
1	1.3095	0.1749	1.7200	50.3	10	−0.5047	0.1053*		
2	3.4224	0.0042			11	−0.9260	0.2394	1.7618	27.1
3	1.2860	0.0625	1.6228	57.0	12	−0.3966	0.0562	1.8052	25.4
4	0.3527	0.2498			13	2.8183	0.0587		
5	0.9089	0.0625	1.7130	54.0	14	−4.4221	0.1041	1.6204	60.3
6	0.5161	0.1066			15	−0.8160	0.0062		
7	1.0384	0.1940	1.5927	35.5	16	3.4073	0.0999	1.6228	57.0
8	−2.8818	0.0208			17	−1.2339			
9	−2.3420	0.2831	1.6134	43.8					

0.1053* = 0.0400 + 0.0653

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00173	0.00133	−0.00048	−0.00204	−0.01297	0.93	−3%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.0027	−0.0284	−0.0212	−0.0001	−0.0211	−0.00243	−0.00027
70	−0.0082	−0.0170	−0.0041	−0.0109	0.0068	−0.00380	−0.00053



编号：03-02-038

大孔径超广角镜头

E.F.L=1　　B.F.L=0.8693　　FNo.=2.8　　F.A.=±48°

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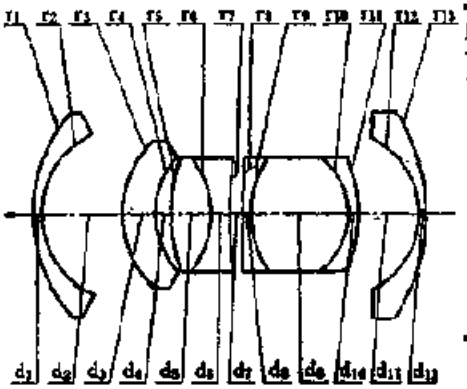
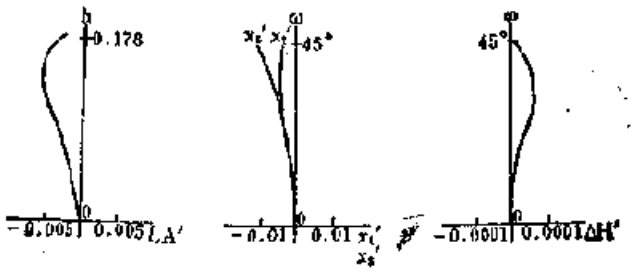
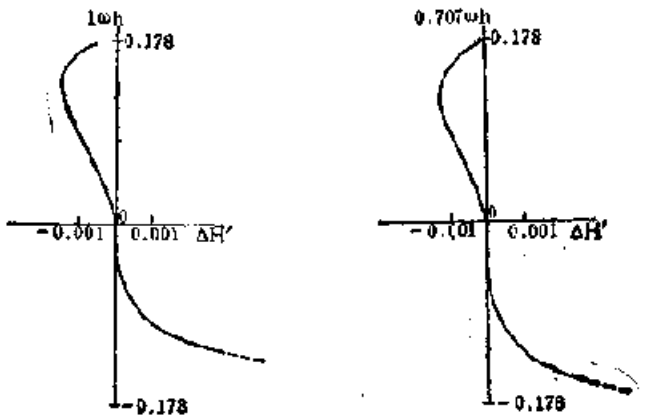


序号	r	d	n	ν	序号	r	d	n	ν
1	0.8431	0.0394	1.73520	41.58	8	5.8836	0.0495	1.46450	65.70
2	0.4845	0.4580			9	0.4845	0.5396	1.68273	44.51
3	0.5436	0.1803	1.80518	25.43	10	-0.3821	0.0495	1.84666	23.82
4	0.4443	0.0321			11	-0.8133	0.3523		
5	0.9460	0.2202	1.78831	47.37	12	-0.4607	0.0329	1.71300	53.85
6	-0.4845	0.1067	1.63980	34.60	13	-0.9598			
7	2.1179	0.0694*							

0.0694* = 0.0350 + 0.0344

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	-0.00081	-0.00021	-0.00015	-0.00037	0.00002	1	-0.0002%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K'_{T1}	$K'_{T0.7}$
100	-0.0037	-0.000002	-0.0037	-0.0110	0.0073	0.0100	0.00039
70	-0.0050	0.000070	-0.0048	-0.0059	0.0011	0.0030	-0.00020

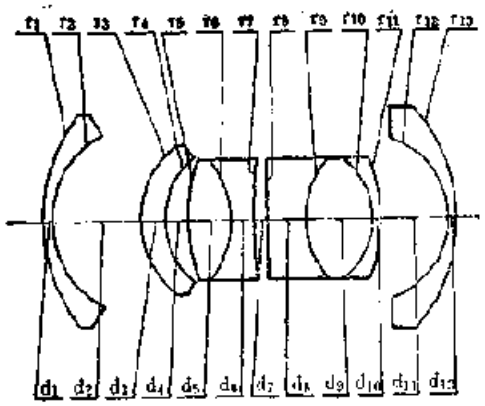




编号: 03-02-039

大孔径超广角镜头

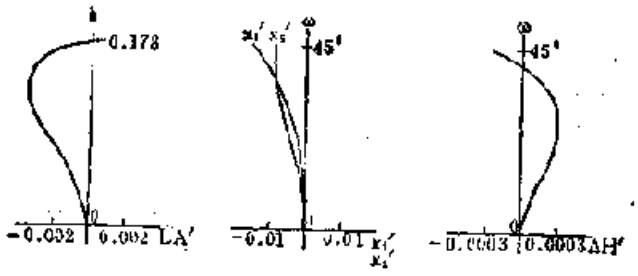
E.F.L=1　　B.F.L=0.3529　　FNo.=2.8　　F.A.=±45°

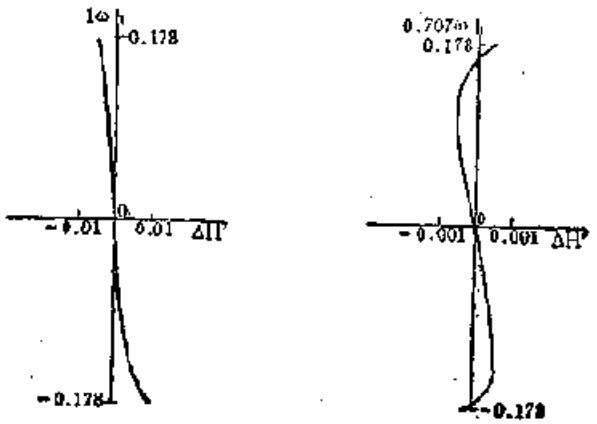


序号	r	d	n	v	序号	r	d	n	v
1	0.91002	0.0517	1.58893	51.39	8	∞	0.2222	1.62299	58.06
2	0.51913	0.5011			9	0.49004	0.3681	1.74400	44.77
3	0.50438	0.1330	1.78470	26.08	10	−0.40358	0.0310	1.84666	23.82
4	0.61531	0.1266			11	−0.87148	0.3849		
5	0.97786	0.2299	1.78831	47.37	12	−0.45932	0.0336	1.71300	53.85
6	−0.51913	0.1318	1.65446	33.67	13	−0.92317			
7	4.46321	0.0697*							

0.0697* = 0.0350 + 0.0347

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	H	QP(1ω)
	−0.00067	−0.00035	−0.00019	−0.00055	0.00031	1	−0.03%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t - x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.00013	−0.00029	−0.0152	−0.0092	−0.0060	0.002720	0.000038
70	−0.00350	0.00033	−0.0052	−0.0068	0.0016	0.000099	0.000030

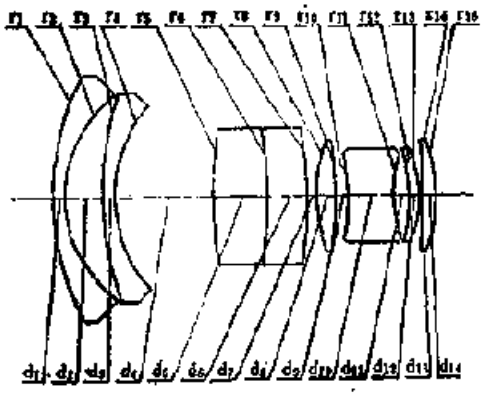




编号：03-02-040

反远距型广角镜头

E.F.L＝99.99　　B.F.L＝180.06　　FNo.＝2.8　　F.A.＝±37.5°



序号	r	d	n	ν	序号	r	d	n	ν
1	160.34	6.94	1.51633	64.1	9	−261.91	8.67*		
2	78.42	22.55			10	−122.46	27.75	1.80518	25.4
3	187.33	6.94	1.58913	61.1	11	90.19	8.60		
4	81.33	62.44			12	−109.64	7.28	1.69350	50.8
5	242.83	34.69	1.62004	36.3	13	−68.62	0.49		
6	−242.83	24.28	1.51633	64.1	14	−648.62	8.67	1.71300	54.0
7	−222.49	5.20			15	−118.08			
8	103.19	11.45	1.81554	44.5					

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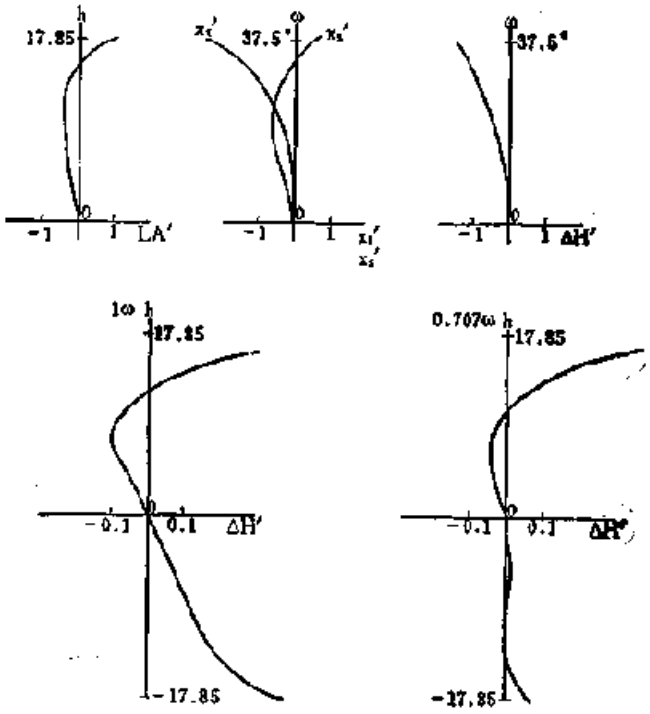
8.67* = 4.00 + 4.67

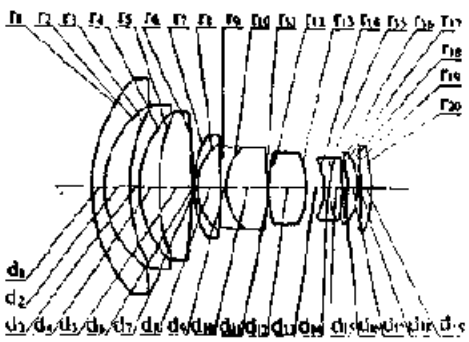
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.1071	−0.0178	0.0215	−0.1259	−0.5852	76.01	−1.9%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K'_{T1}	$K'_{T0.7}$
100	0.974	−1.445	−2.567	0.508	−3.075	0.498	0.086
70	−0.357	−0.659	−0.679	−0.538	−0.143	0.390	0.030



编号：03-02-041

反远距型超广角物镜

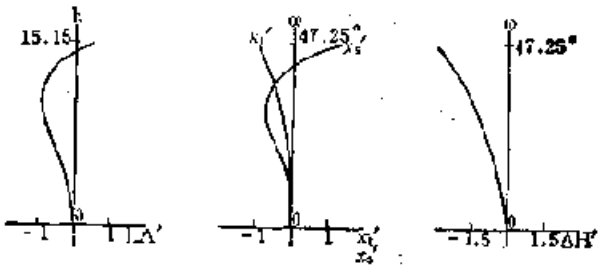
E. F. L＝99.8　　B. F. L＝185.2　　FNo. ＝8.3　　F. A. ＝±47.25°

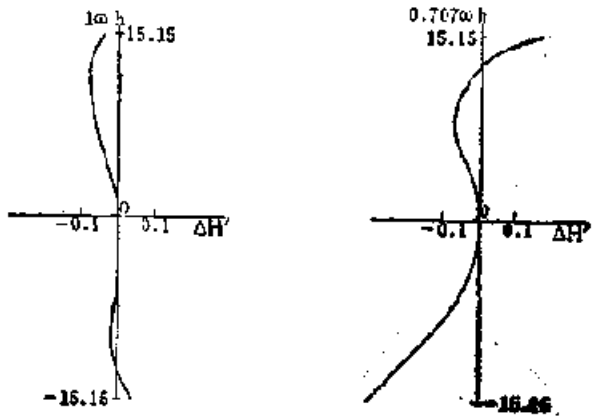


序号	r	d	n	v	序号	r	d	n	v
1	174.64	15.64	1.72000	50.3	11	−503.70	0.49		
2	103.78	26.70			12	138.74	13.93	1.60717	40.2
3	182.73	9.55	1.71700	47.9	13	−102.62	19.05*		
4	106.48	21.90			14	−64.23	7.26	1.74000	28.2
5	212.01	38.11	1.69680	55.6	15	−31.46	12.38	1.58144	40.8
6	−845.70	0.97			16	−557.20	4.73		
7	120.10	5.26	1.72000	50.3	17	−128.22	12.86	1.69100	54.8
8	57.33	22.42			18	−64.43	0.49		
9	−531.30	5.60	1.70154	41.1	19	−3491.00	14.28	1.64000	60.2
10	60.16	46.20	1.67270	32.2	20	−123.10			

19.05* = 9.05 + 10.00

	ΣS_I	ΣS_{II}	ΣS_{III}	ΣS_{IV}	ΣS_V	HI	$Q\Gamma_{(1\omega)}$
	−0.1508	0.0229	0.0766	−0.1389	−1.0422	107.4	−2.8%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	x_t'　x_s'	K_{t_1}'	$K_{t_{0.7}}'$
100	0.4450	−3.022	−0.939	1.252	−2.181	−0.0051	−0.6443
70	−0.974	−1.556	−0.435	−0.797	0.362	−0.0688	−0.1091

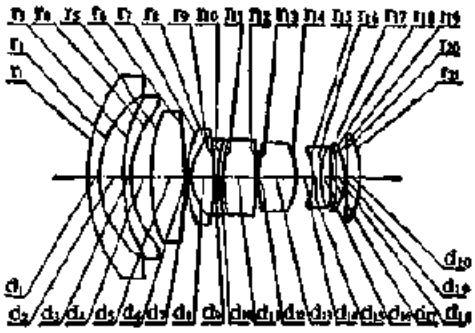




编号：03-02-042

反远距型超广角物镜

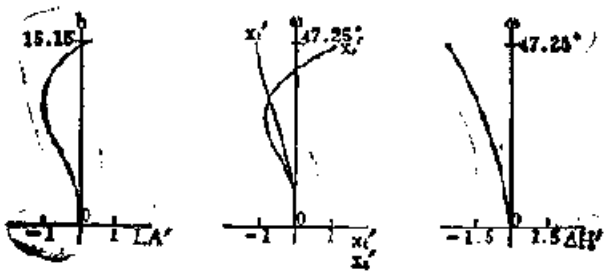
E. F. L＝100　　B. F. L＝185.4　　FNo. ＝8.8　　F. A. ＝ ± 47.25°

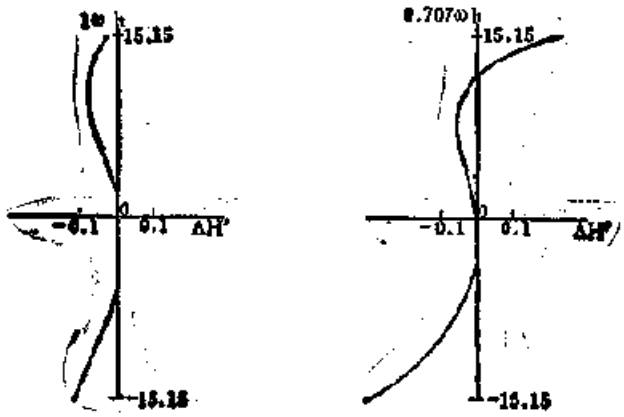


序号	r	d	n	v	序号	r	d	n	v
1	175.83	13.66	1.72000	50.3	12	−570.70	0.49		
2	102.62	28.72			13	178.58	40.97	1.60717	40.2
3	171.91	9.56	1.71700	47.9	14	−99.96	19.96*		
4	113.18	21.50			15	−66.77	7.20	1.74000	28.2
5	214.61	38.13	1.69680	55.6	16	81.43	12.38	1.58144	40.8
6	−1370.00	0.98			17	−850.80	4.73		
7	118.52	5.27	1.72000	50.3	18	−152.37	12.87	1.69100	54.8
8	55.05	22.43			19	−69.18	0.49		
9	−1499.00	5.61	1.69680	55.6	20	−937.80	14.29	1.64000	60.2
10	149.72	4.39			21	−108.71			
11	160.19	38.86	1.68893	31.2					

19.06* = 9.05 + 10.01

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.1482	0.0529	0.0299	−0.1307	−0.9866	107.6	−2.5%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{0.7}'$
100	0.243	−2.662	−1.121	1.232	−2.353	−0.0765	−0.0682
70	−0.976	−1.511	−0.771	−0.881	0.110	−0.0264	−0.0806





编号：03-02-043

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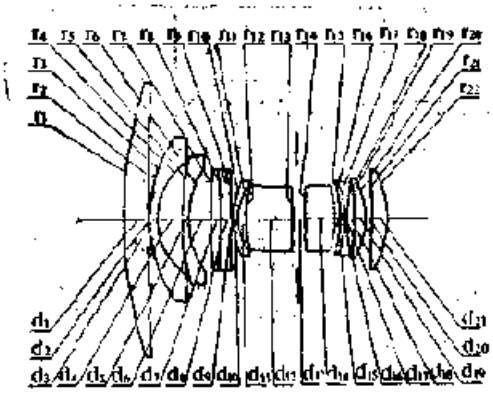
反远距型超广角物镜

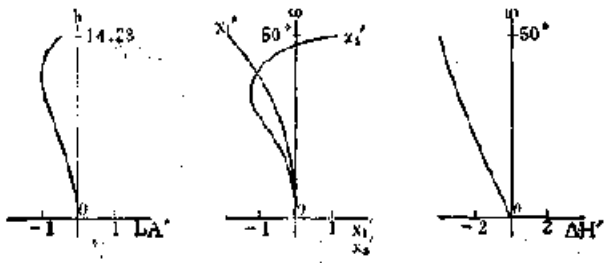
E.F.L＝100　　B.F.L＝203　　FNo.＝3.5　　F.A.＝±50°

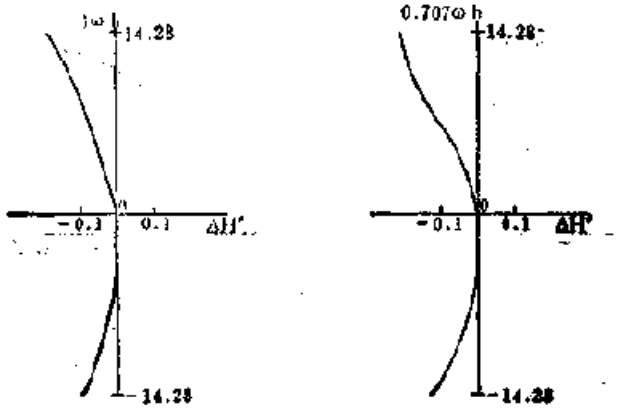


序号	r	d	n	ν	序号	r	d	n	ν
1	495.86	20.00	1.80610	40.8	12	160.76	50.59	1.56732	42.83
2	1096.11	1.09			13	−585.01	13.10*		
3	156.51	8.73	1.67000	57.33	14	648.73	34.69	1.63980	34.58
4	74.22	26.74			15	− 99.14	4.42		
5	258.06	8.62	1.67000	57.33	16	−127.99	5.48	1.80400	46.65
6	101.01	23.14			17	−109.12	3.55	1.80520	25.43
7	426.22	12.28	1.75520	27.51	18	252.34	5.73		
8	−574.85	10.91	1.83400	37.19	19	−417.21	13.10	1.61800	63.38
9	−8345.24	1.09			20	− 94.77	6.82		
10	103.21	5.46	1.69680	55.62	21	−968.20	16.10	1.61800	63.38
11	54.38	9.88			22	−119.64			

19.10* = 7.00 + 6.10

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.1289	0.0874	−0.0003	−0.1192	−1.6933	119.4	−3.5%
h或ω%	LA′	ΔH′	x_1'	x_2'	$x_1'-x_2'$	K_{I1}	$K_{I0.7}$
100	−0.493	−4.187	−1.869	1.225	−3.094	−0.1364	−0.0710
70	−1.041	−3.089	−0.833	−1.335	0.502	−0.1713	−0.1116





编号：03-02-044

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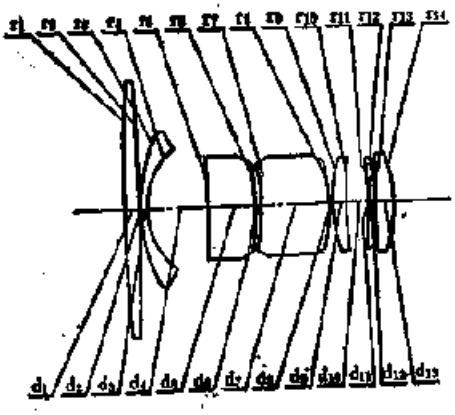
反远距型广角镜头

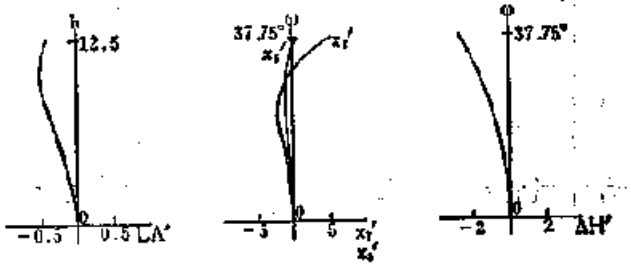
E. F. L＝99.6　　B. F. L＝141.19　　FNo. ＝4　　F. A. ＝±37.75°

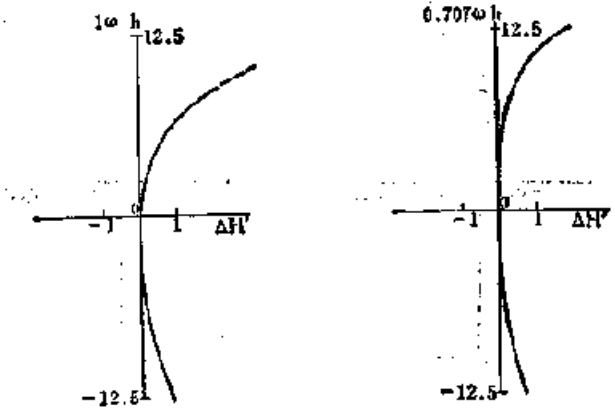


序号	r	d	n	ν	序号	r	d	n	ν
1	865.02	6.83	1.67003	47.3	8	− 77.90	0.38		
2	− 1424.08	1.05			9	67.11	6.78	1.72600	53.6
3	72.62	3.82	1.61800	63.4	10	238.28	10.35		
4	35.36	27.33			11	−370.33	0.97	1.75520	27.5
5	− 463.53	22.75	1.66892	45.0	12	70.66	2.75		
6	− 114.16	2.67*			13	∞	7.90	1.72600	53.6
7	− 68.95	31.42	1.67790	55.3	14	− 64.98			

2.67* = 1.30 + 1.37

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.0390	0.0127	− 0.0498	− 0.0486	− 0.7537	75.7	− 3.8%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{To.7}'$
100	− 0.438	− 2.851	5.505	0.434	5.071	3.487	1.269
70	− 0.458	− 1.255	− 1.873	− 1.110	− 0.763	1.283	0.450





编号：03-02-045

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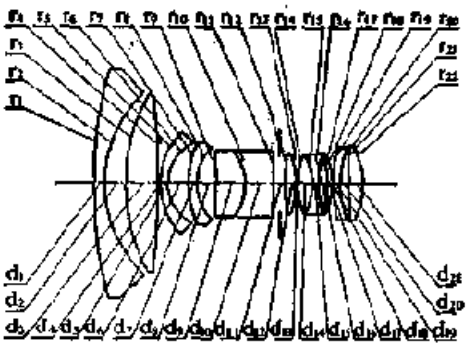
超广角摄影物镜

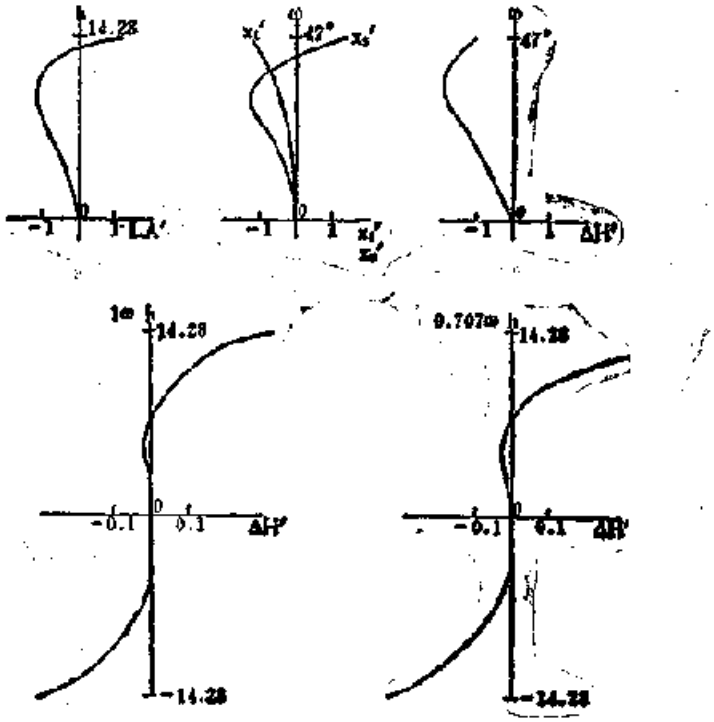
E. F. L＝100　　B. F. L＝179.89　　FNo. ＝3.5　　F. A. ＝±47°



序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	519.231	11.06	1.64000	60.2	12	649.038	10.56	1.58913	61.2
2	138.498	22.12			13	−106.296	0.48		
3	209.135	37.50	1.51633	64.1	14	83.111	16.83	1.58913	61.2
4	−757.390	0.72			15	−73.077	7.69	1.81554	44.4
5	78.365	8.99	1.64000	60.2	16	128.104	7.69		
6	49.066	24.04			17	−192.300	7.21	1.51823	59.0
7	117.788	8.99	1.64000	60.2	18	−78.832	0.48		
8	58.380	29.67			19	403.846	6.73	1.76182	26.5
9	−384.615	31.25	1.63636	35.4	20	108.806	8.17		
10	−55.288	31.25	1.58913	61.2	21	743.971	16.83	1.51190	38.2
11	−619.439	14.42*			22	−89.216			

14.42* = 7.00 + 7.42

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.1795	0.0127	0.0856	−0.1549	−1.3774	107.2	−1%
h 或 ω%	LA′	ΔH′	x_s'	x_t'	$x_t'-x_s'$	K_{T1}'	$K_{10.7}'$
100	1.223	−1.070	−1.179	1.447	−2.626	0.0187	−0.0184
70	−1.216	−2.068	−0.532	−1.274	0.742	0.2588	−0.0135



编号：03-02-046

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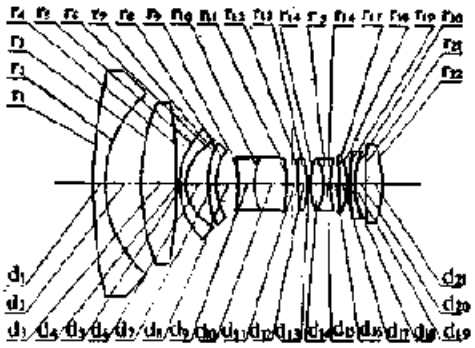
超广角摄影物镜

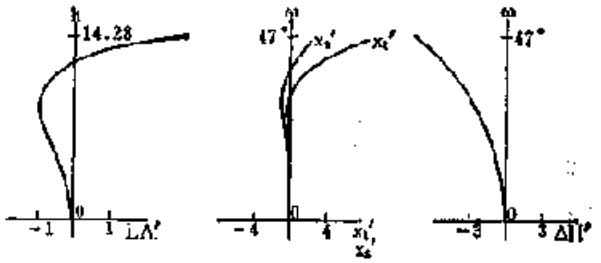
E. F. L＝98　　B. F. L＝183.85　　FNo.＝8.5　　F. A. ＝±47°

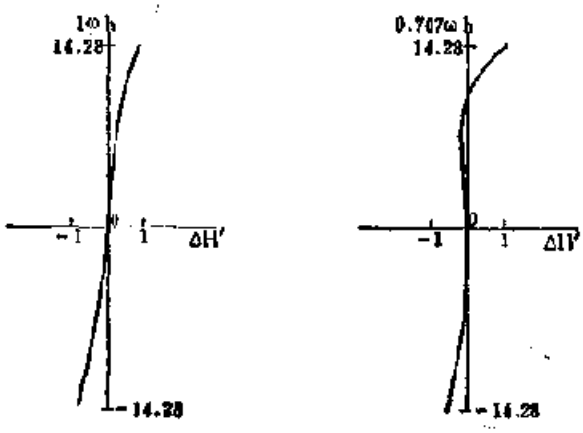


序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	519.231	13.85	1.64000	60.2	12	3605.769	11.06	1.58913	61.2
2	130.205	40.86			13	−113.405	0.24		
3	250.000	38.46	1.51633	64.1	14	83.137	16.69	1.58913	61.2
4	−569.697	0.24			15	−69.711	8.65	1.81554	44.4
5	81.731	8.99	1.64000	60.2	16	131.757	8.65		
6	51.734	24.04			17	−199.519	9.61	1.51633	64.1
7	121.154	8.99	1.64000	60.2	18	−77.619	0.48		
8	60.657	23.08			19	353.365	6.73	1.80518	25.5
9	−173.077	19.23	1.51633	64.1	20	109.566	9.61		
10	80.288	33.65	1.62588	35.5	21	649.038	19.23	1.51633	64.1
11	−239.723	13.46*			22	−97.329			

13.46* = 7.00 + 6.46

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.1913	−0.1082	0.0372	−0.1215	−1.6599	105.07	−7%
h 或 ω%	LA′	ΔH′	x_t^*	x_s^*	$x_t^* - x_s^*$	K_{T1}^*	$K_{T0.7}^*$
100	3.283	−7.418	8.412	2.004	6.408	0.4968	−0.0112
70	−0.959	−2.965	0.538	−0.709	1.247	0.3329	−0.0414

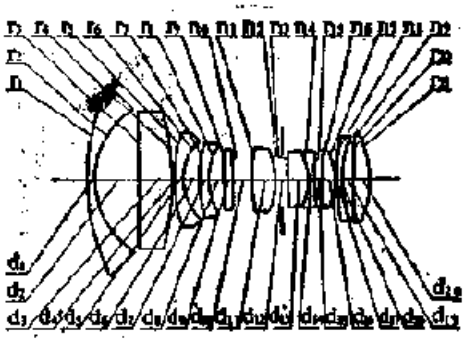




编号：03-02-047

具有长后截距的超广角物镜

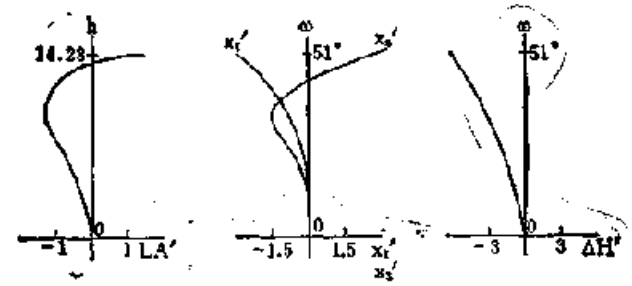
E. F. L＝99.99　　B. F. L＝109.71　　FNo. ＝3.5　　F. A. ＝±51°

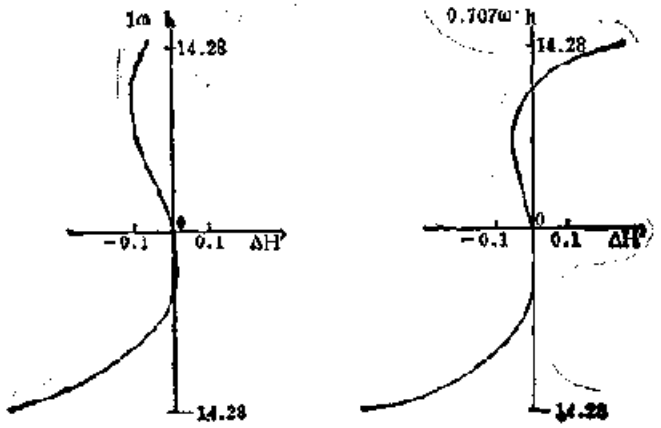


序号	r	d	n	ν	序号	r	d	n	ν
1	229.52	8.00	1.64000	60.2	12	− 95.77	15.68*		
2	94.56	47.57			13	424.27	23.24	1.51633	64.1
3	∞	38.89	1.51633	64.1	14	− 58.17	6.40	1.83400	37.2
4	− 312.73	1.62			15	253.87	8.11		
5	150.12	9.62	1.64000	60.2	16	− 1502.70	14.59	1.48749	70.1
6	56.47	18.91			17	− 72.55	0.54		
7	167.82	9.62	1.51633	64.1	18	324.22	5.76	1.80518	25.4
8	65.37	16.22			19	121.74	10.81		
9	333.50	9.62	1.64000	60.2	20	1043.14	18.92	1.51633	64.1
10	− 1093.72	21.62			21	− 106.74			
11	181.10	25.40	1.62588	35.7					

15.68* = 8.00 + 7.68

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1∞)
	− 0.1917	− 0.0822	0.0469	− 0.1748	− 1.7521	123.5	− 4.8%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s''$	K_{T1}'	$K_{T0.7}'$
100	1.250	− 5.944	− 3.114	3.174	− 6.288	− 0.2666	− 0.1305
70	− 1.302	− 3.344	− 0.976	− 1.595	0.619	− 0.1109	− 0.0695





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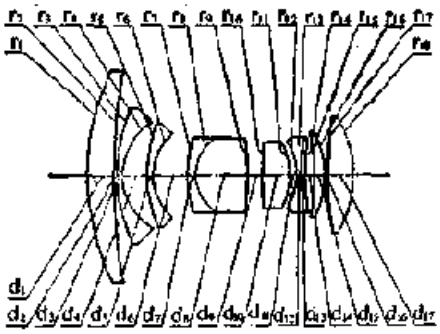
编号：03-02-048

大孔径超广角镜头

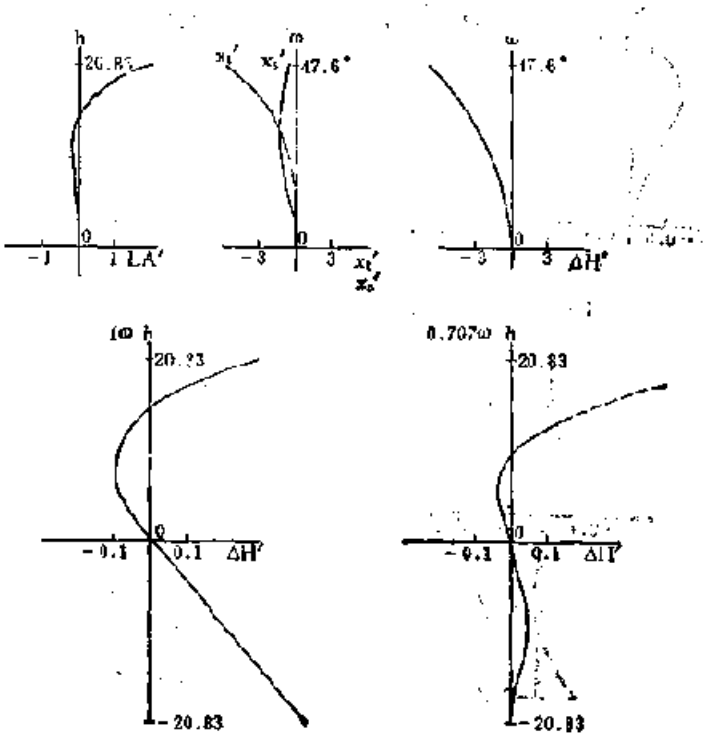
E. F. L＝100.6　　B. F. L＝191.38　　FNo. ＝2.4　　F. A. ＝±47.6°



序号	r	d	n	ν	序号	r	d	n	ν
1	326.282	40.61	1.64000	60.2	10	740.583	39.45	1.65160	58.6
2	949.626	0.49			11	−100.524	10.47		
3	207.067	9.38	1.78590	44.2	12	−81.327	4.97	1.80518	25.4
4	88.291	38.62			13	228.834	7.50	1.48749	70.1
5	239.832	5.99	1.58913	61.1	14	340.745	9.88		
6	80.421	50.89			15	−409.070	21.91	1.51633	64.1
7	276.609	11.59	1.75700	47.9	16	−104.702	0.49		
8	60.873	78.01	1.74950	35.2	17	698.995	36.08	1.77250	49.6
9	−349.170	20.89*			18	−162.162			

20.89* = 4.00 + 16.89

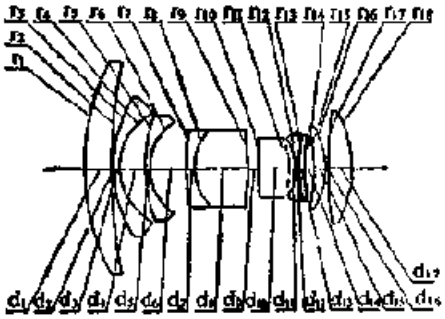
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.1267	0.0170	0.1018	−0.1993	−2.6228	110	−6.3%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	2.118	−6.910	−5.969	−0.426	−5.543	0.3605	0.1510
70	−0.020	−3.189	−1.431	−1.230	−0.201	0.6205	0.1320



编号：03-02-049

大 孔 径 广 角 镜 头

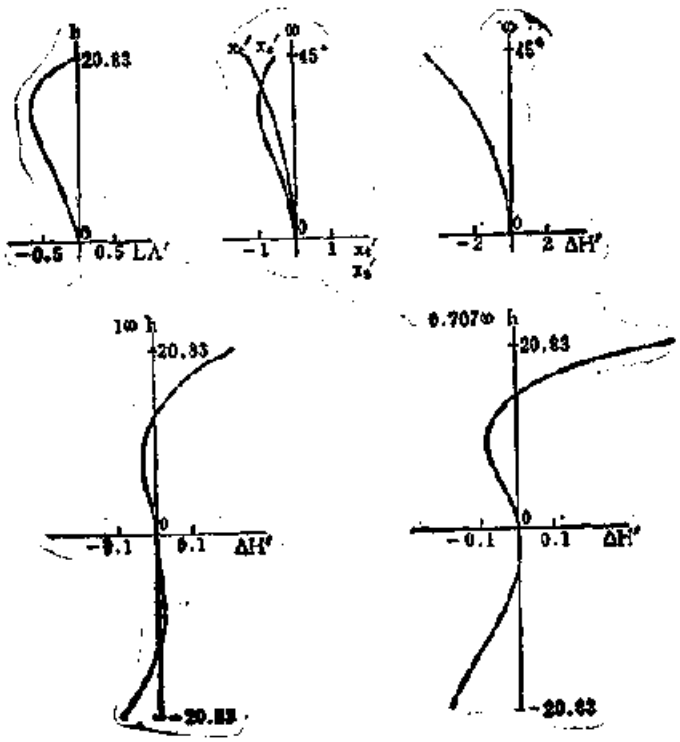
E. F. L＝100　　B. F. L＝182.54　　FNo. ＝2.4　　F. A. ＝±45°**



序号	r	d	n	v	序号	r	d	n	v
1	316.035	40.70	1.64100	56.0	10	742.100	15.35	1.65160	58.6
2	850.727	0.50			11	−99.663	10.00		
3	192.992	10.00	1.78800	47.5	12	−81.765	6.00	1.80518	25.4
4	85.423	38.70			13	243.745	6.00	1.48749	70.1
5	224.740	6.00	1.58913	61.1	14	307.472	9.90		
6	79.827	54.40			15	−409.540	21.95	1.56873	63.1
7	273.245	11.60	1.75500	52.5	16	−112.317	0.50		
8	76.470	78.15	1.74950	35.2	17	577.670	36.15	1.77250	49.6
9	−358.257	16.05*			18	−160.725			

16.05* = 8.00 + 8.05

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.1904	0.0509	0.1287	−0.2063	−2.1410	100	−1.8%
h 或 ω %	LA′	ΔH′	x_1'	x_2'	$x_1'-x_2'$	K_{T1}^{4}	$K_{T0.7}^{4}$
100	−0.068	−4.825	−1.281	−0.466	−0.815	0.0613	0.0042
70	−0.648	−2.266	−0.614	−1.003	0.394	0.1318	−0.0579



编号：03-02-050

具有长后截距的超广角物镜

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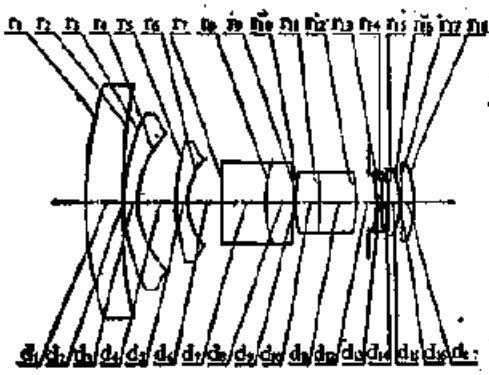
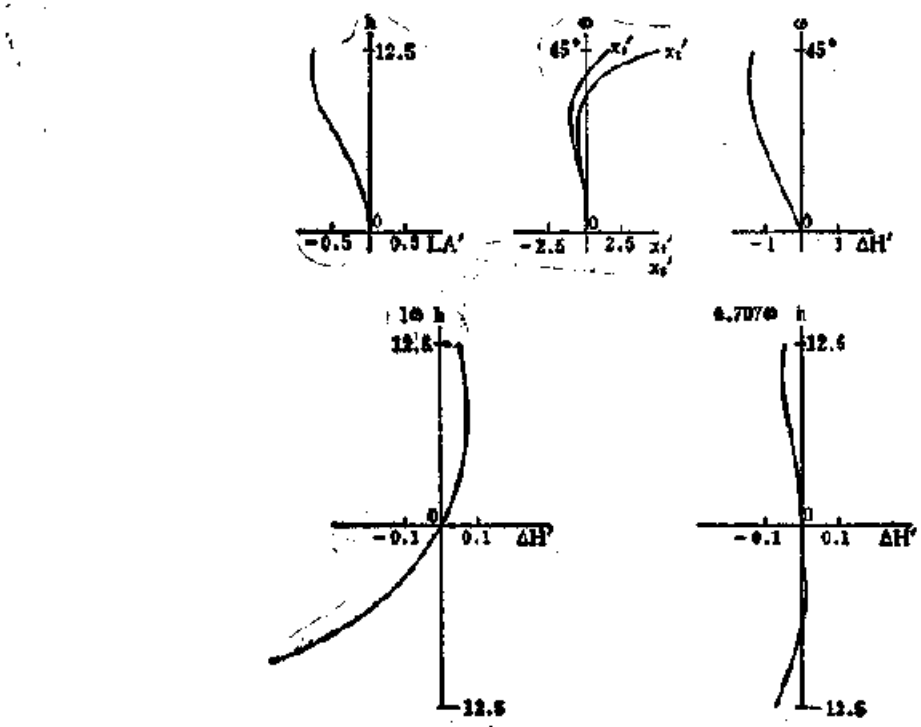
E. F. L＝100　　B. F. L＝178.92　　FNo. ＝4　　F. A. ＝±45°



序号	r	d	n_e	ν_e	序号	r	d	n_e	ν_e
1	285.31	27.68	1.52788	64.31	10	112.07	18.54	1.61111	45.92
2	887.45	0.46			11	−346.45	26.76	1.53430	48.66
3	138.37	10.15	1.62287	60.06	12	−100.72	13.84*		
4	72.02	27.68			13	− 72.25	5.08	1.74618	27.97
5	146.90	8.30	1.85104	57.08	14	216.52	3.23		
6	48.35	25.38			15	−259.71	9.23	1.62287	60.06
7	∞	32.30	1.62287	60.06	16	− 65.93	0.46		
8	81.52	20.30	1.53530	45.67	17	∞	9.23	1.59142	61.03
9	−274.84	0.92			18	− 97.77			

13.84* = 5.00 + 8.84

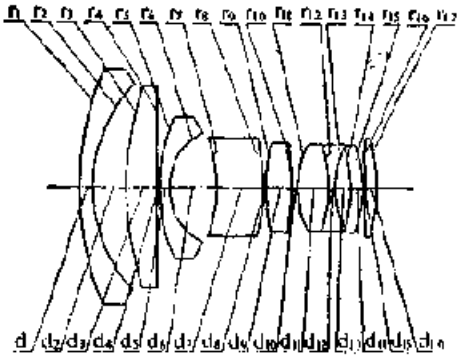
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.0587	0.0988	−0.1549	−0.0601	−0.4946	100	−1.3%
h 或 ω %	LA′	ΔH′	x_1'	x_2'	$x_1'-x_2'$	K_{T1}'	$K_{F0.7}'$
100	−0.792	−1.269	5.203	1.422	3.786	−0.332	−0.162
70	−0.712	−1.837	−0.376	−0.805	0.429	−0.071	−0.037



编号：03-02-051

具有长后截距的小型广角物镜

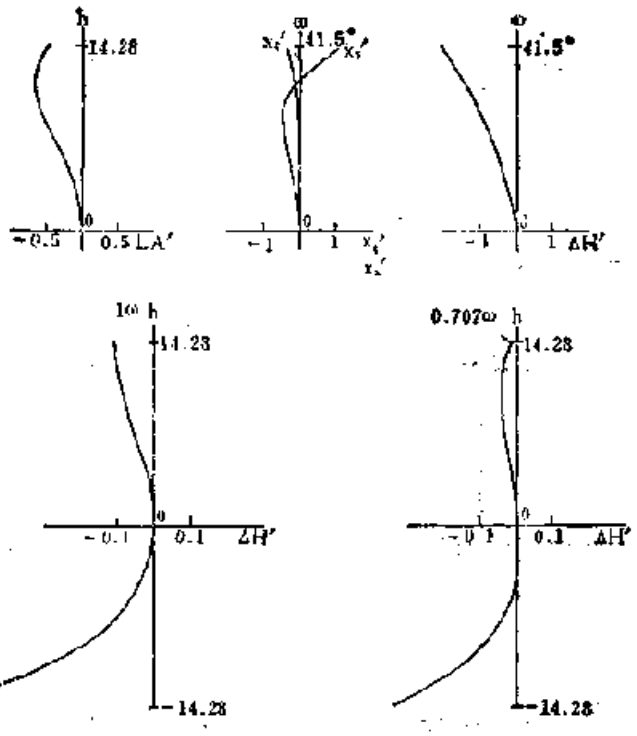
E. F. L＝98.56　　B. F. L＝47.9　　FNo. ＝8.5　　F. A. ＝±41.5°



序号	r	d	n	v	序号	r	d	n	v
1	221.0	10.0	1.51633	64.1	10	−247.9	6.0		
2	109.6	24.0			11	88.5	22.0	1.56883	56.0
3	228.0	23.5	1.83630	30.4	12	−116.0	4.5	1.69895	30.0
4	2495.6	0.5			13	68.1	11.0*		
5	133.5	7.5	1.62041	60.3	14	−124.5	10.1	1.58487	53.0
6	43.5	35.0			15	−73.4	0.5		
7	−110.0	35.0	1.51633	64.1	16	∞	9.5	1.56732	42.8
8	−138.1	0.5			17	−106.4			
9	179.0	20.0	1.55690	48.5					

11.0* = 5.5 + 5.5

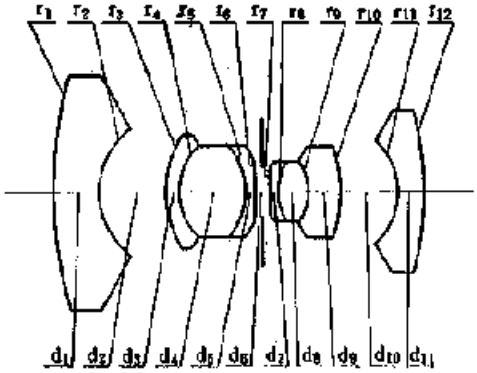
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.0699	0.0414	−0.0069	−0.0855	−0.3083	86.4	−2.5%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	−0.458	−2.190	−0.265	1.214	−1.479	−0.364	−0.159
70	−0.596	−1.222	−0.079	−0.446	0.367	−0.188	−0.078



编号：03-02-052

超广角摄影物镜

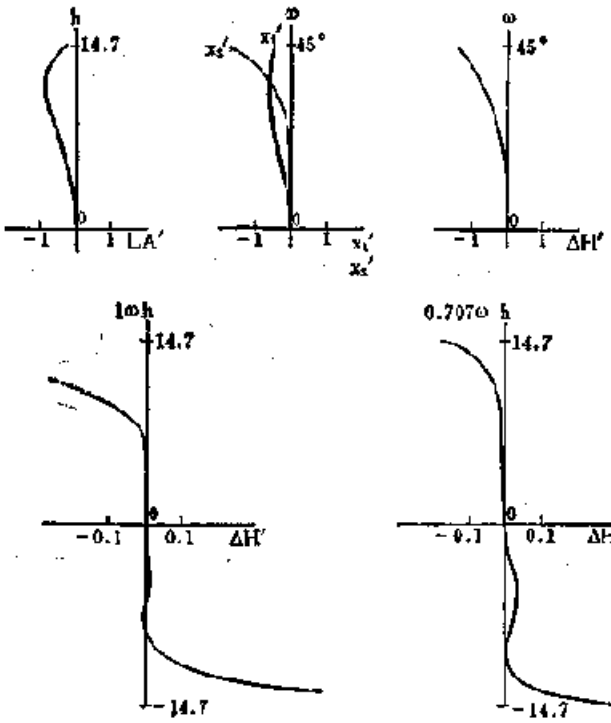
E. F. L＝100　　B. F. L＝89　　FNo. ＝8.4　　F. A. ＝±45°



序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	284.94	24.53	1.52249	59.64	7	318.75	4.62	1.58732	42.82
2	42.02	37.10			8	29.20	26.20	1.62299	58.12
3	61.73	7.25	1.72372	38.09	9	−28.48	18.39	1.71700	47.90
4	34.17	36.50	1.60729	49.29	10	−78.50	31.37		
5	−35.23	4.90	1.56013	47.03	11	−37.98	14.65	1.54072	47.22
6	−270.66	8.27*			12	−165.40			

8.27* = 4.13 + 4.14

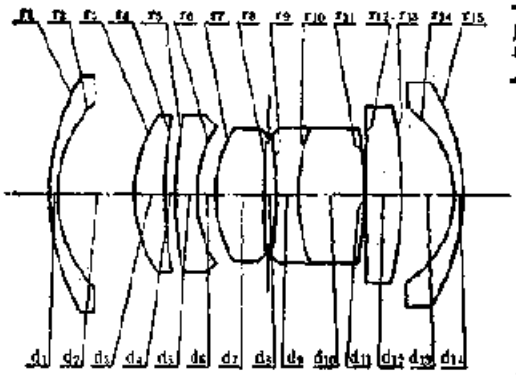
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.0867	−0.0289	−0.0476	0.0402	−0.3022	100	−1.4%
h 或 ω%	LA′	ΔH′	x_t^s	x_s^s	$x_t^s - x_s^s$	K_{f1}^s	$K_{f0.7}^s$
100	−0.241	−1.408	−0.378	−1.746	1.368	−0.037	−0.065
70	−0.771	−0.492	−0.605	−0.356	−0.249	0.112	−0.011



编号：03-02-053

八片式广角物镜

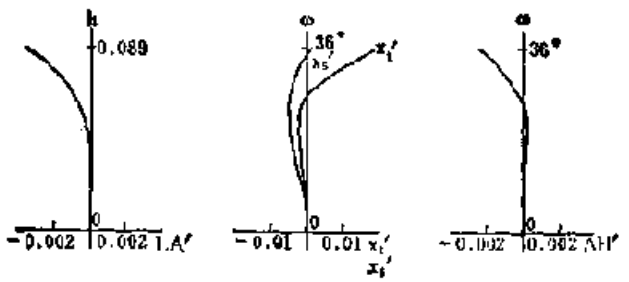
E.F.L=0.997　　B.F.L=0.624　　FNo.=5.6　　F.A.=±36°

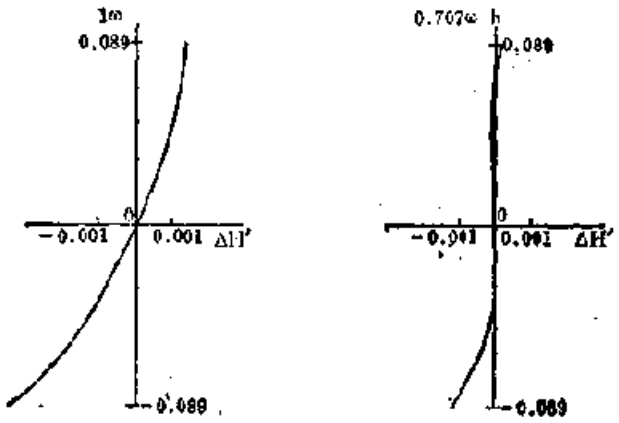


序号	r	d	n_D	ν_D	序号	r	d	n_D	ν_D
1	0.4865	0.0137	1.5165	64.1	9	−1.0477	0.0458	1.7495	35.0
2	0.2711	0.1637			10	0.3742	0.1971	1.8155	44.4
3	0.2867	0.0617	1.6583	57.3	11	−1.0776	0.0055		
4	0.7593	0.0214			12	−35.2349	0.0740	1.6935	53.4
5	0.6531	0.0439	1.6056	43.9	13	−0.9079	0.1096		
6	0.2626	0.0395			14	−0.2124	0.0186	1.5150	54.3
7	0.2812	0.1093	1.5596	61.2	15	−0.4169			
8	1.5406	0.0219*							

0.0219* = 0.0100 + 0.0119

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	0.000008	−0.000020	−0.000003	−0.000198	0.000277	0.72	−0.3%
h或ω%	LA′	ΔH′	x_t^s	x_s^t	$x_t^t - x_s^t$	K_{T1}^s	$K_{To.1}^s$
100	−0.00392	−0.00235	0.01939	0.00110	0.01829	−0.00106	−0.00033
70	−0.00062	0.00007	−0.00233	−0.00491	0.00258	−0.00052	−0.00019

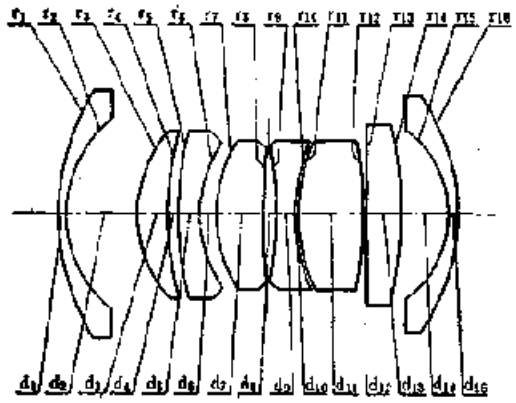




编号：03-02-054

八片式广角物镜

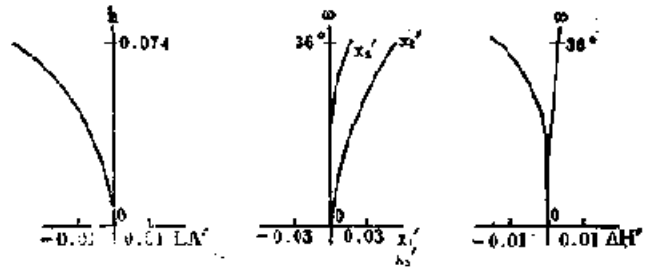
E.F.L＝0.685　　B.F.L＝0.509　　FNo.＝5.6　　F.A.＝±36°

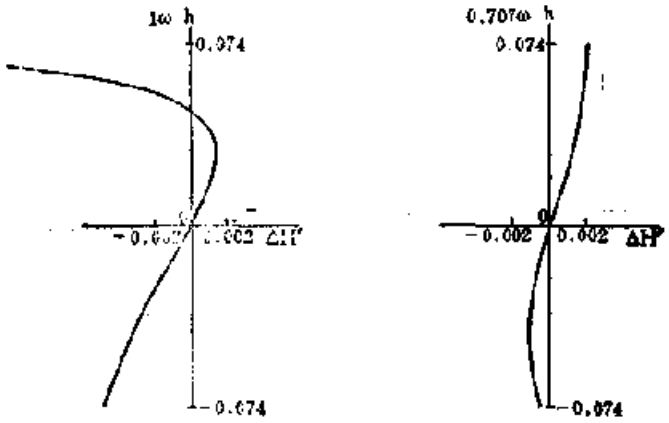


序号	r	d	n_D	ν_D	序号	r	d	n_D	ν_D
1	0.4844	0.0137	1.516564.1		9	-1.0060	0.0460	1.7495	35.4
2	0.2502	0.1520			10	0.3702	0.0017		
3	0.2591	0.0620	1.651055.8		11	0.3770	0.1370	1.8155	44.4
4	0.6434	0.0210			12	-0.9263	0.0060		
5	0.8338	0.0446	1.605643.9		13	-28.0256	0.0698	1.6910	54.8
6	0.2589	0.0325			14	-0.8150	0.1006		
7	0.2651	0.1000	1.559661.2		15	-0.2110	0.0190	1.5150	54.5
8	1.7450	0.0203*			16	-0.4302			

0.0203* = 0.0100 + 0.0103

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	-0.00035	0.00005	0.00033	-0.00029	-0.00129	0.61	-2.9%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T_1}'	$K_{T0.7}'$
100	-0.028	-0.018	0.055	0.017	0.038	-0.2520	-0.0020
70	-0.012	-0.004	0.029	0.004	0.025	0.0007	0.0003

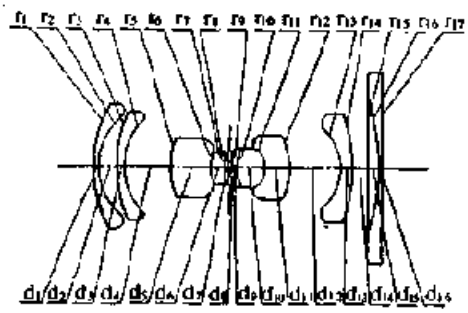




编号：03-02-055

广　角　物　镜

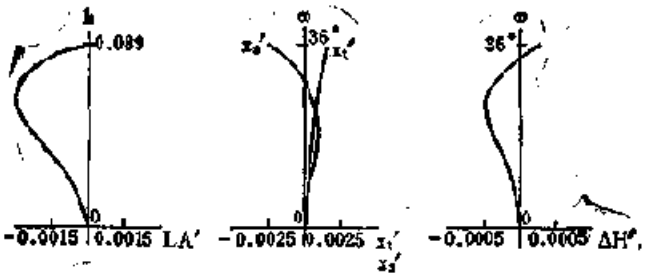
E. F. L＝1　　B. F. L＝0.2898　　FNo. ＝5.6　　F. A. ＝±36°

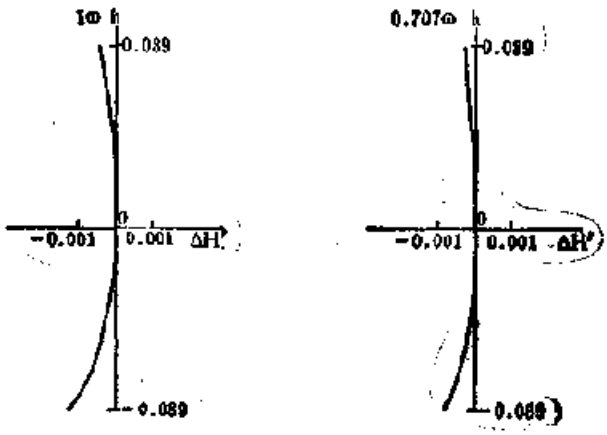


序号	r	d	n_d	ν_d	序号	r	d	n_d	ν_d
1	1.0092	0.0384	1.50048	65.9	10	0.2865	0.2137	1.62230	53.1
2	0.4817	0.1362			11	−0.2485	0.1753	1.71736	29.5
3	0.9586	0.0411	1.48749	70.0	12	−0.5903	0.3772		
4	0.4897	0.3553			13	−0.3901	0.0926	1.64850	53.0
5	0.5419	0.2830	1.71300	53.8	14	−1.1741	0.1260		
6	0.2447	0.1131	1.60729	59.9	15	∞	0.0876	1.50013	63.2
7	1.3703	0.0192	1.60717	40.2	16	−1.4786	0.0164	1.50048	65.9
8	−1.8791	0.0345*			17	∞			
9	−2.8252	0.0274	1.57250	57.5					

0.0345* = 0.0170 + 0.0175

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00016	−0.00008	−0.00002	0.00008	−0.00037	0.73	0.03%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.00027	0.00024	0.00168	−0.00256	0.00424	−0.00079	−0.00035
70	−0.00292	−0.00053	0.00118	0.00074	0.00044	−0.00059	−0.00033





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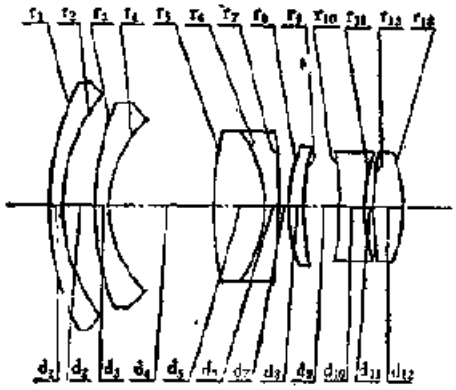
编号：03-02-056

摄影或电影摄影用的广角物镜

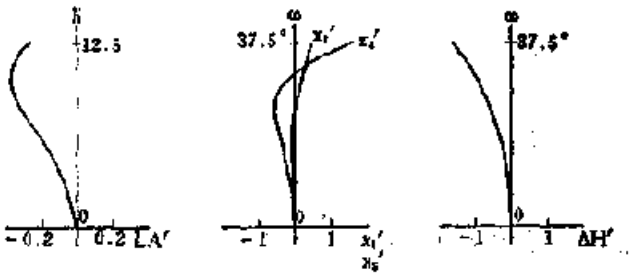
E. F. L＝100　　B. F. L＝128.2　　FNo. ＝4　　F. A. ＝±37.5°

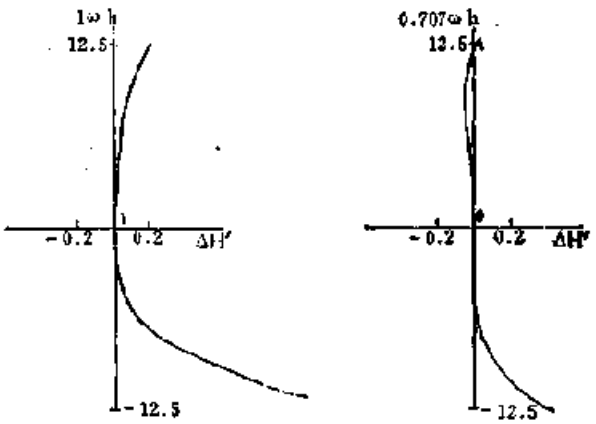


序号	r	d	n_e	ν_e	序号	r	d	n_e	ν_e
1	101.29	4.91	1.51871	63.96	8	64.23	6.31	1.62287	60.06
2	65.35	12.28			9	137.14	12.28		
3	100.72	4.93	1.51871	63.96	10	−110.72	10.17	1.70444	29.84
4	41.50	39.29			11	66.66	2.81*		
5	131.77	19.30	1.62508	52.93	12	175.52	10.53	1.68081	55.31
6	−46.87	5.26	1.50228	65.92	13	−56.17			
7	−319.47	3.51							

2.81* = 1.40 + 1.41

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HJ	QP(1ω)
	−0.0290	−0.0102	−0.0016	−0.0634	−0.3720	76.02	−2.2%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	−0.285	−1.666	0.480	1.615	−1.185	0.8796	0.2595
70	−0.343	−0.678	0.078	−0.498	0.576	0.2367	0.0345





编号：03-02-057

改进的对称式广角物镜

E. F. L＝100.24　　B. F. L＝83.88　　FNo. ＝5.6　　F. A. ＝±30°

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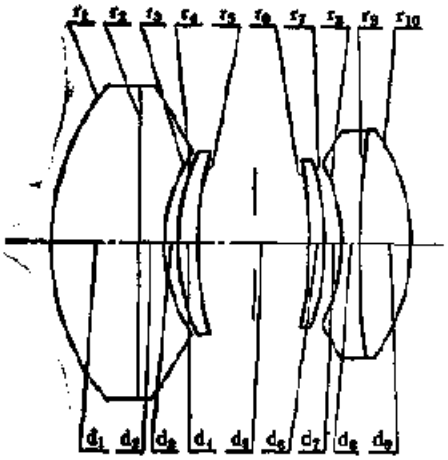
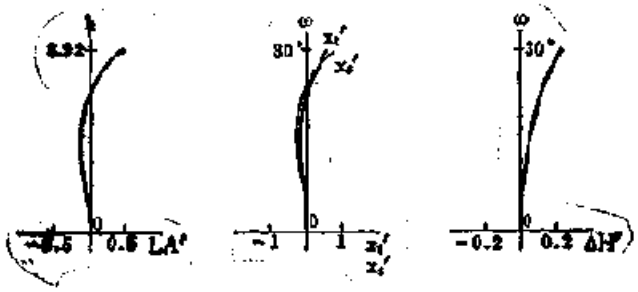
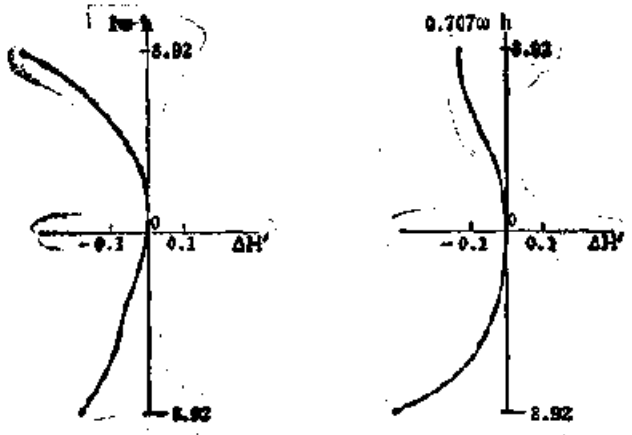


序号	r	d	n_e	ν_e	序号	r	d	n_e	ν_e
1	22.79	8.08	1.6055	60.5	6	−42.35	1.37	1.5201	65.0
2	−774.09	2.40	1.5543	49.3	7	−25.83	1.63		
3	14.65	1.20			8	−14.93	1.66	1.5543	49.3
4	20.20	1.89	1.5201	65.0	9	142.70	4.77	1.6055	60.5
5	31.94	10.10*			10	−17.95			

10.10* = 5.30 + 4.80

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00921	−0.01625	0.00386	−0.01777	0.04301	57.9	0.4%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.473	0.239	0.699	0.788	−0.089	−0.269	−0.118
70	−0.051	0.095	−0.042	−0.129	−0.087	−0.221	−0.096

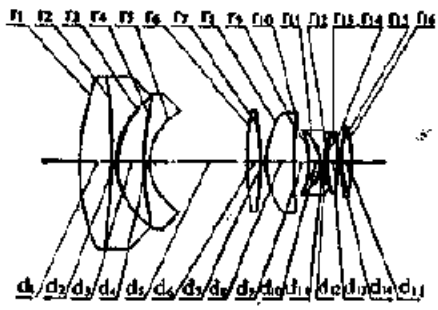




编号：03-02-058

反 远 距 型 物 镜

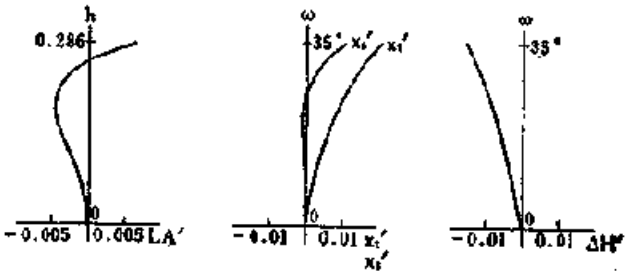
E.F.L=1　　B.F.L=1.494　　FNo.=1.75　　F.A.=±35'

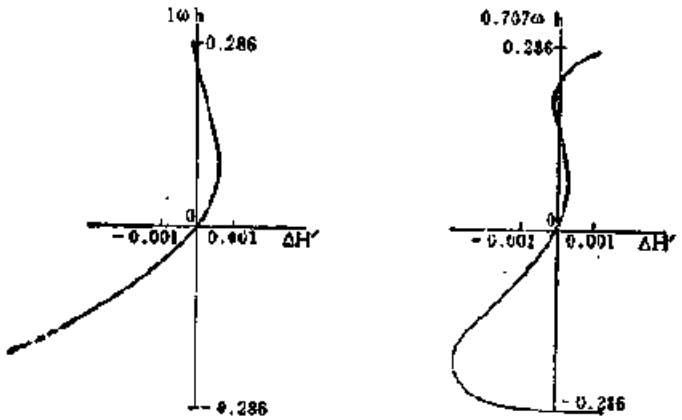


序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	8.962	0.605	1.74400	44.71	9	7.339	0.294		
2	-13.870	0.099	1.50759	61.16	10	-1.310	0.195	1.72000	50.31
3	1.400	0.488			11	-0.875	0.106	1.84793	33.80
4	4.460	0.099	1.65100	58.60	12	1.421	0.047*		
5	1.282	1.780			13	2.690	0.216	1.59100	54.80
6	4.935	0.251	1.80545	38.03	14	-1.635	0.040		
7	-4.935	0.096			15	3.298	0.176	1.59100	54.80
8	1.527	0.493	1.65100	58.60	16	-3.298			

0.047* = 0.023 + 0.024

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(tω)
	-0.00319	0.00115	0.00130	-0.00277	-0.01431	0.7	-2.2%
h 或 ω%	LA′	ΔH′	x_t''	x_s'	$x_t''-x_s'$	K_{T1}''	$K_{T0.7}''$
100	0.00015	-0.0157	0.0197	0.0112	0.0085	-0.0032	-0.0022
70	-0.00450	-0.0089	0.0110	-0.0009	0.0119	0.0013	-0.0015





编号：03-02-059

广 角 摄 影 物 镜

E. F. L＝0.988　　B. F. L＝1.158　　FNo.＝4　　F. A.＝±32°

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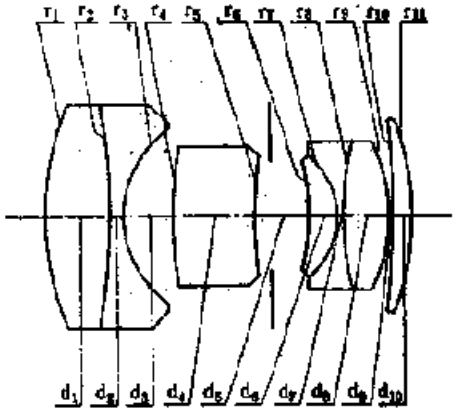
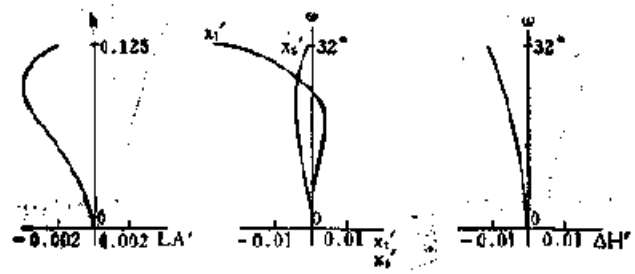
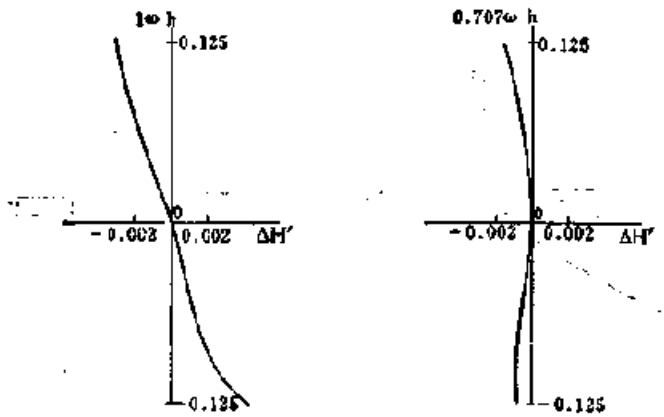


序号	r	d	n_d	v	序号	r	d	n_d	v
1	0.70887	0.185890	1.62041	60.3	7	− 0.21315	0.022740	1.72339	38.0
2	− 1.83258	0.037240	1.50137	56.5	8	0.95212	0.123930	1.66672	48.4
3	0.28631	0.133342			9	− 0.42835	0.002840		
4	0.95897	0.230230	1.75520	27.5	10	− 3.01095	0.061960	1.69067	54.9
5	2.37442	0.150650*			11	− 0.68380			
6	− 0.53539	0.074470	1.65160	58.4					

$0.150650^{*} = 0.050650 + 0.100000$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.00037	− 0.00027	0.00045	− 0.00082	− 0.00399	0.61	− 1.7%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{t1}'	$K_{t0.7}'$
100	− 0.00189	− 0.0106	− 0.0270	− 0.0007	− 0.0263	0.00064	− 0.00009
70	− 0.00378	− 0.0057	0.0035	− 0.0046	0.0081	− 0.00109	− 0.00093





编号：03-02-060

两组元超广角摄影物镜

E. F. L＝27.88　　B. F. L＝32.09　　FNo.＝3.5　　F. A.＝±46.5°

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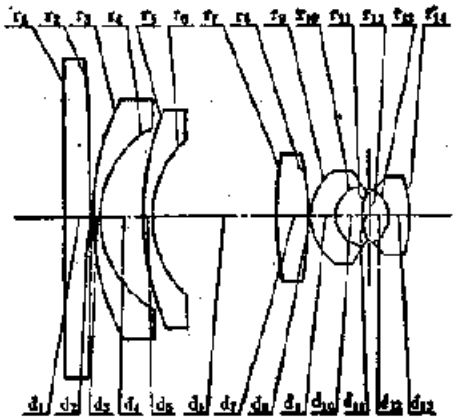
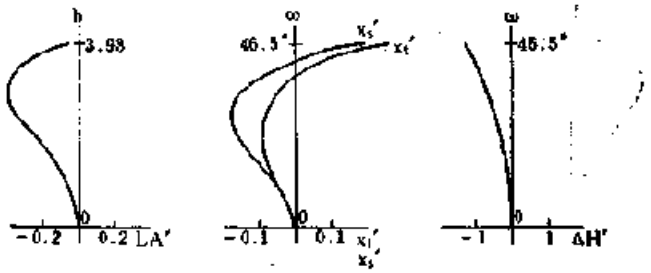
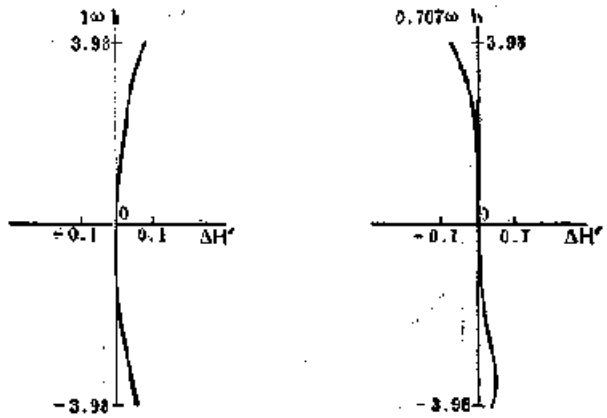


序号	r	d	nD	νD	序号	r	d	nD	νD
1	∞	8.000	1.6126	58.3	8	－89.740	0.200		
2	－743.000	0.680			9	17.258	8.304	1.728	28.3
3	74.300	2.700	1.6126	58.3	10	8.954	8.100	1.6123	44.1
4	31.920	13.500			11	18.197	2.120*		
5	94.620	2.700	1.6126	58.3	12	115.880	5.916	1.6123	44.1
6	32.430	38.650			13	－ 8.790	6.640	1.7280	28.3
7	135.210	9.750	1.6126	58.3	14	－37.150			

2.120* = 1.060 + 1.060

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	－0.0482	0.0267	－0.0176	－0.0155	－0.3081	29.3	－4.3%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T_1}'	$K_{T_{0.7}}'$
100	－0.0623	－1.2643	0.2497	0.2269	0.0228	0.0616	0.0335
70	－0.3940	－0.5913	－0.0718	－0.1669	0.0951	－0.0137	0.0089





编号：03-02-061

小型的超广角照相机物镜

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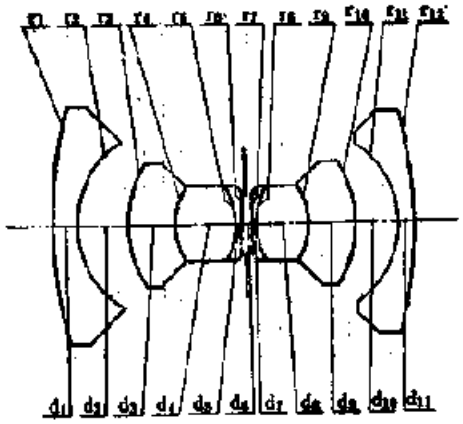
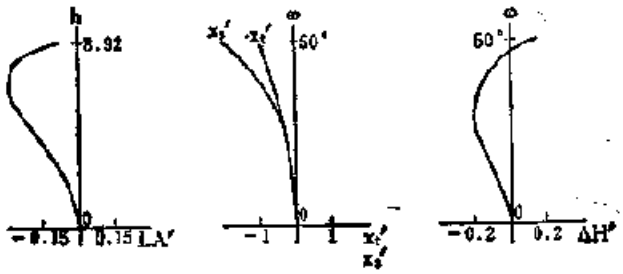
E.F.L＝100.11　　B.F.L＝67.83　　FNo.＝5.6　　2ω＝±80°

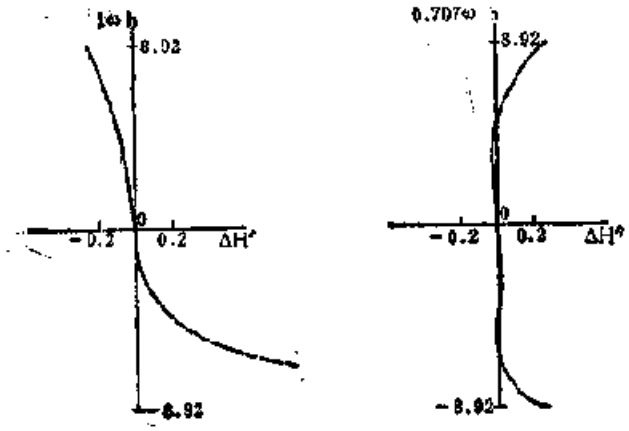


序号	r	d	n_D	ν_d	序号	r	d	n_D	ν_d
1	122.75	7.04	1.46450	65.8	7	−1052.61	1.48	1.56883	56.0
2	25.49	14.65			8	23.84	14.27	1.61378	56.3
3	34.89	13.00	1.71760	47.9	9	− 16.29	12.89	1.70181	41.1
4	20.90	16.48	1.61405	55.1	10	− 34.74	12.04		
5	− 21.48	1.48	1.56138	45.3	11	− 25.98	4.27	1.52015	63.6
6	369.27	2.96*			12	− 128.32			

2.96* = 1.48 + 1.48

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.0119	−0.0063	−0.0017	−0.0049	−0.1015	119.3	0.1%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_s'-x_t'$	K_{T1}	$K_{T0.7}'$
100	−0.094	0.132	−1.029	−2.019	0.990	1.749	0.235
70	−0.279	−0.208	−0.498	−0.754	0.256	0.289	0.016

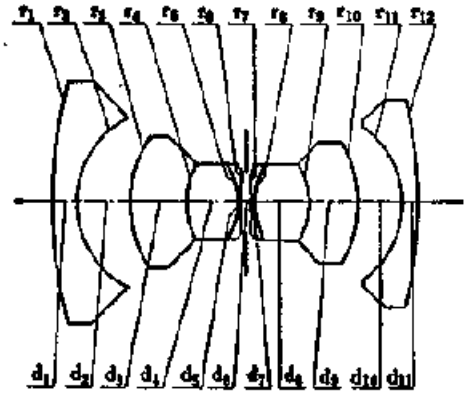




编号：03-02-062

小型的超广角照相机物镜

E. F. L＝100.17　　B. F. L＝68.14　　FNo.＝5.6　　F. A.＝±50°



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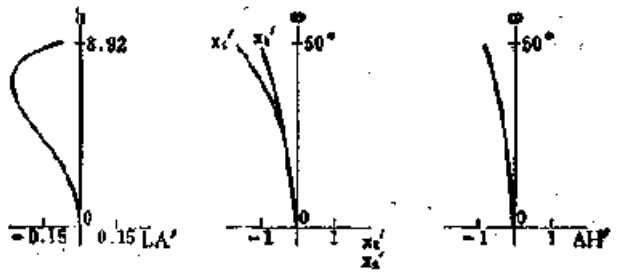
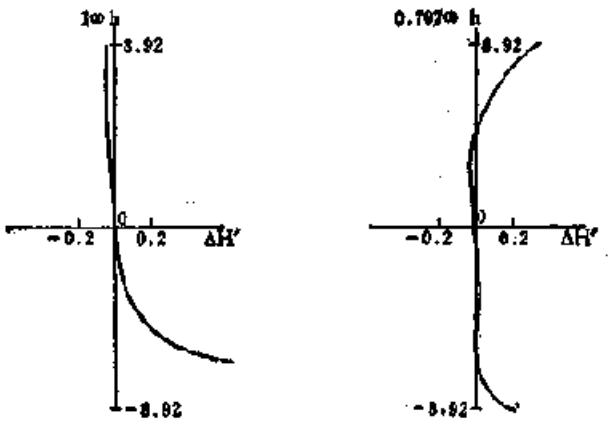
序号	r	d	n_D	ν_d	序号	r	d	n_D	ν_d
1	127.95	7.17	1.46450	65.8	7	−1056.86	1.10	1.56470	58.6
2	25.54	14.87			8	23.95	14.45	1.61375	56.3
3	38.13	15.42	1.71700	47.9	9	− 16.46	13.40	1.70181	41.1
4	20.56	13.83	1.61405	55.1	10	− 34.95	12.25		
5	−21.67	1.10	1.56138	45.3	11	− 25.94	4.26	1.52015	63.6
6	361.41	2.95*			12	− 124.29			

2.95* = 1.48 + 1.47

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HT	QP (1ω)
	−0.0110	−0.0043	−0.0030	0.0003	−0.1405	119.4	−0.68%
h 或ω%	LA′	ΔH′	x_2^s	x_3^s	$x_4^s - x_3^s$	K_{F1}^s	$K_{F0.7}^s$
100	−0.0917	−0.0174	−1.0324	−1.7721	0.7397	1.3542	0.2222
70	−0.2773	−0.3949	−0.5751	−0.6247	0.0535	0.2871	0.0381





编号：03-02-063

反远距型物镜

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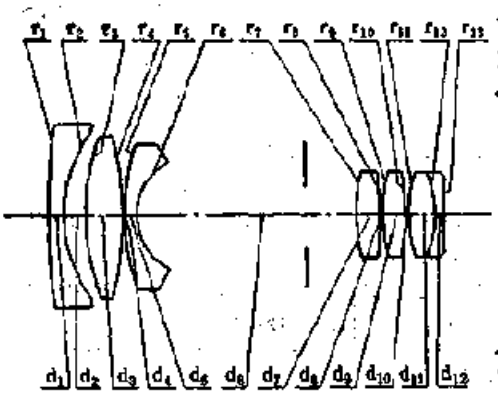
E.F.L＝84.03　　B.F.L＝54.3　　FNo.＝4**　　F.A.＝±30'**

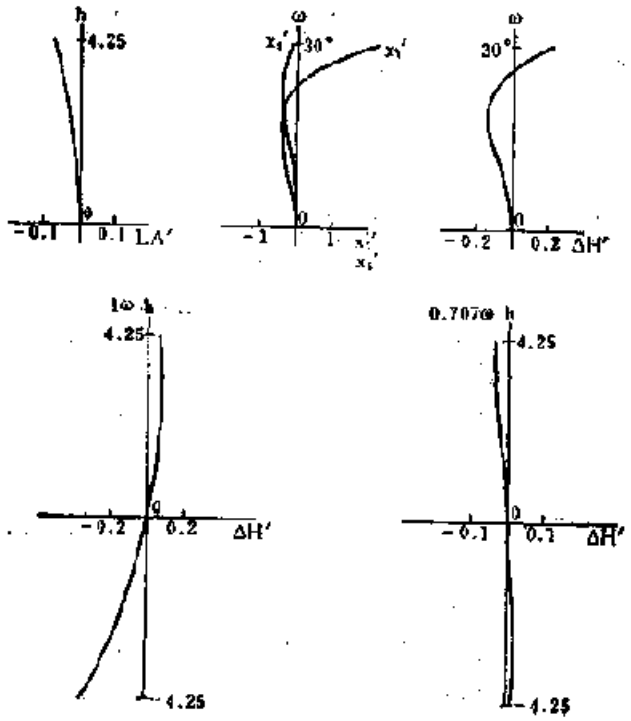


序号	r	d	n_D	ν_D	序号	r	d	n_D	ν_D
1	506.3	8.31	1.572	57.4	8	−205.7	1.33		
2	68.3	13.61			9	105.3	13.78	1.517	64.5
3	134.7	20.17	1.745	46.4	10	−105.3	1.66		
4	−172.0	1.36			11	81.8	13.90	1.511	63.5
5	142.3	6.24	1.572	57.4	12	−46.5	4.23	1.751	27.8
6	33.9	122.00*			13	382.5			
7	105.8	13.90	1.517	64.5					

* 122.00* = 100.00 + 22.00

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP (1ω)
	−0.0029	0.0052	−0.0113	−0.0238	−0.0886	19.6	1.1%

h 或 ω %	LA′	ΔH′	x_1^t	x_5^t	$x_1^t - x_5^t$	Kf_1	$Kf_{0.7}$
100	−0.0848	0.2162	2.3262	−0.0818	2.4080	−0.1450	−0.0712
70	−0.0448	−0.1566	−0.3732	−0.3439	−0.0293	−0.0096	−0.0059



编号：03-02-064

反 远 距 型 物 镜

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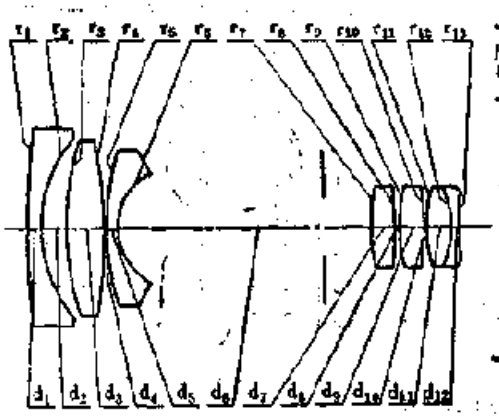
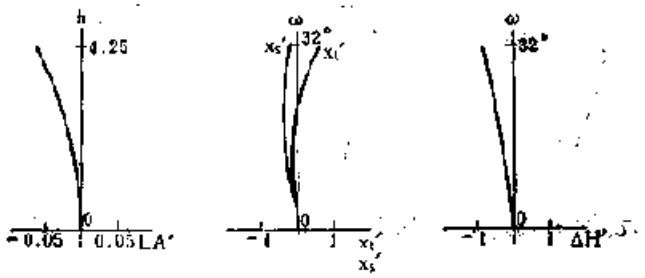
E. F. L＝34.45　　B. F. L＝55.0　　FNo. ＝4**　　F. A. ＝±32°

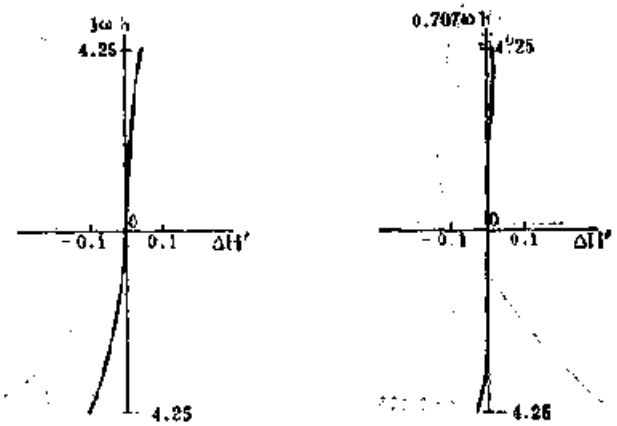


序号	r	d	nD	νD	序号	r	d	nD	νD
1	500.5	8.33	1.569	57.4	8	196.5	1.67		
2	77.9	13.71			9	97.2	13.86	1.515	64.5
3	134.4	20.95	1.740	46.4	10	−317.0	1.67		
4	− 252.1	1.43			11	82.4	14.00	1.509	63.5
5	138.1	5.95	1.569	57.4	12	− 48.2	4.29	1.743	27.8
6	34.4	125.90*			13	907.0			
7	108.0	13.29	1.515	64.5					

125.90* = 100.00 + 25.90

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.0024	0.0029	0.0039	− 0.0259	− 0.3028	21.5	− 4.1%
h或ω%	LA′	ΔH′	x_1'	x_2'	$x_1'-x_2'$	K_{T1}'	$K_{T0.7}'$
100	− 0.0673	− 0.8887	0.6434	− 0.1306	0.7740	− 0.0331	− 0.0168
70	− 0.0365	− 0.4741	− 0.0304	− 0.2703	0.2399	− 0.0037	− 0.0034





编号：03-02-065

广　角　物　镜

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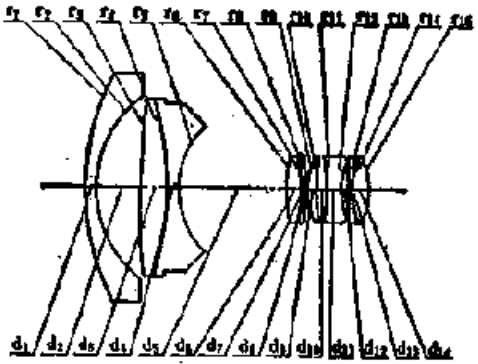
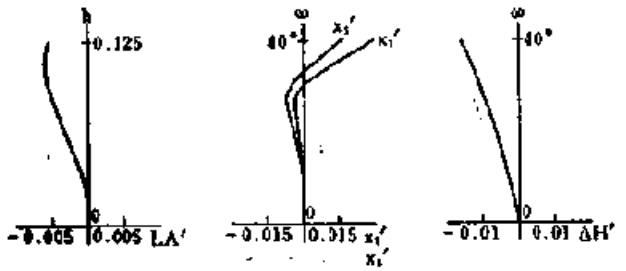
E.F.L＝ 9　　B.F.L＝1.488　　FNo.＝4**　　F.A.＝±40°

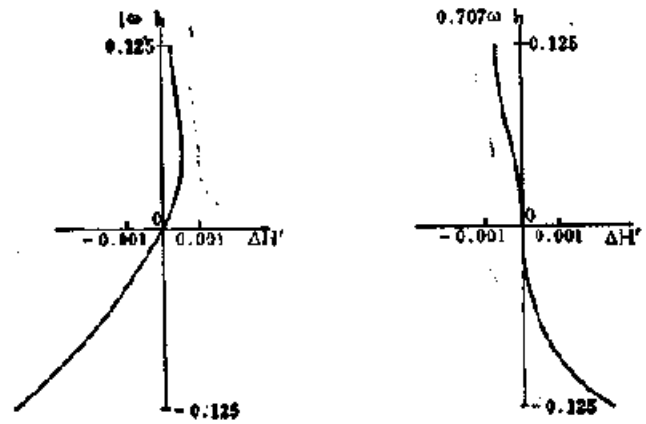


序号	r	d	n	ν	序号	r	d	n	ν
1	2.6089	0.1164	1.5014	56.5	9	0.6728	0.1048	1.5673	42.8
2	1.1903	0.4384			10	2.1657	0.6854		
3	3.9468	0.2716	1.8052	25.5	11	− 3.1116	0.1552	1.8052	25.5
4	− 3.0154	0.1164	1.4463	67.3	12	0.6464	0.0660*		
5	0.8543	1.1251			13	6.6224	0.9310	1.6200	36.3
6	1.3277	0.1552	1.6385	55.5	14	0.7162	0.1786	1.7363	32.1
7	− 0.9506	0.0388	1.7408	28.1	15	− 0.3590			
8	− 3.4224	0.0038							

$0.0660^{*} = 0.0330 + 0.0330$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP (1ω)
	− 0.00040	0.00022	− 0.00012	− 0.00069	− 0.00556	0.84	− 1.9%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	− 0.00543	− 0.0165	0.0309	0.0170	0.0139	− 0.0019	− 0.0011
70	− 0.00489	− 0.0099	− 0.0039	− 0.0070	0.0031	0.0008	0.0001

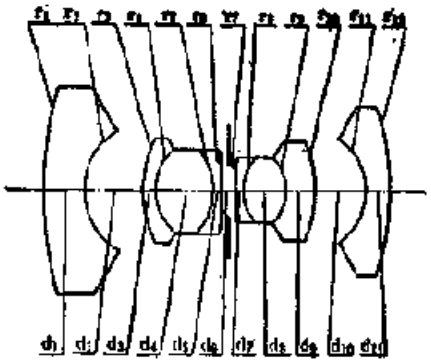




编号：03-02-066

四组元超广角照相机物镜

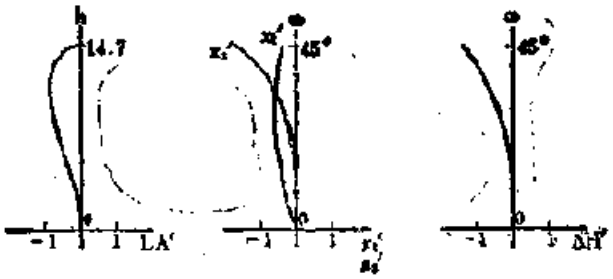
E. F. L＝100　　B. F. L＝39.01　　FNo. ≈8.4　　F. A. ＝±45°

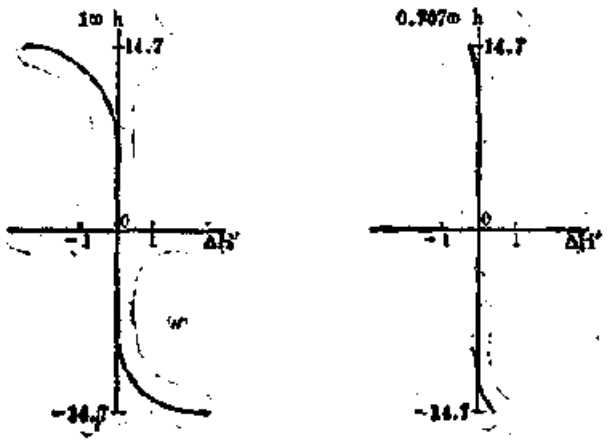


序号	r	d	n_d	ν_d	序号	r	d	n_d	ν_d
1	234.94	24.53	1.52249	59.64	7	318.75	4.62	1.56732	42.82
2	42.02	37.10			8	29.20	26.20	1.62299	58.12
3	61.73	7.25	1.72872	38.00	9	− 28.48	18.39	1.71700	47.99
4	84.17	36.50	1.60729	49.25	10	− 78.50	31.37		
5	− 85.23	4.90	1.56013	47.03	11	− 37.98	14.65	1.54072	47.22
6	−270.56	8.27*			12	−165.40			

8.27* = 4.14 + 4.13

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP (1ω)
	− 0.0867	− 0.0298	− 0.0476	0.0402	− 0.3021	100	− 1.4%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	− 0.241	− 1.408	− 0.379	− 1.747	1.368	− 0.023	− 0.064
70	− 0.771	− 0.492	− 0.606	− 0.357	− 0.249	0.113	− 0.011





编号：03-02-067

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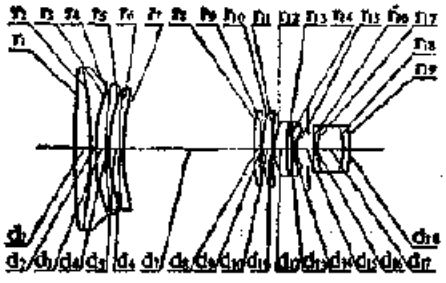
广　角　镜　头

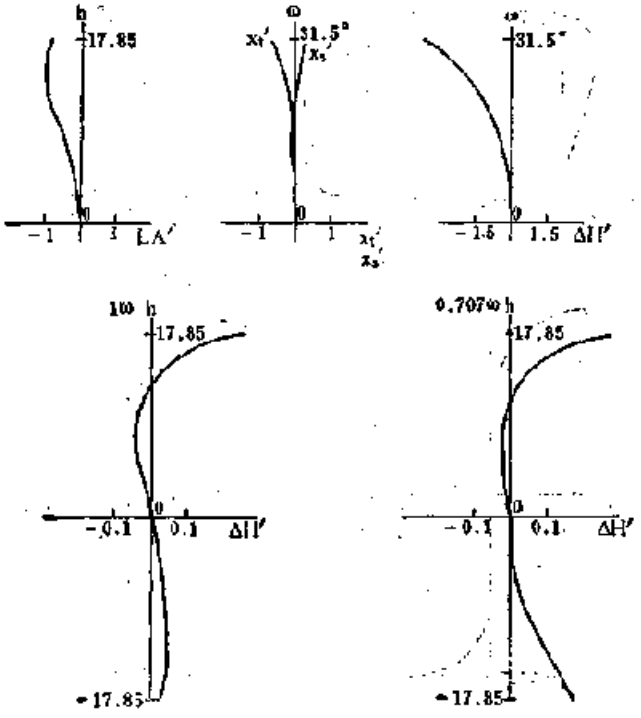
E. F. L＝100　　B. F. L＝103.46　　FNo.＝2.8**　　F. A.＝±31.5°



序号	r	d	n_d	ν_d	序号	r	d	n_d	ν_d
1	1322.732	22.65	1.74057	27.7	11	706.768	0.83		
2	−607.735	7.73	1.49892	65.7	12	63.028	18.76	1.67045	47.0
3	278.149	14.09			13	176.796	11.33	1.46398	65.4
4	1735.635	6.91	1.69139	54.6	14	−418.729	3.04	1.68927	33.1
5	278.149	12.43			15	40.718	26.24*		
6	1043.039	6.91	1.69139	54.6	16	−849.171	5.52	1.56091	45.3
7	367.003	193.37			17	101.478	37.57	1.66067	57.4
8	225.746	9.39	1.63900	55.7	18	− 55.249	7.46	1.53959	59.7
9	564.365	0.28			19	−126.630			
10	116.022	16.85	1.63900	65.7					

26.24* = 14.00 + 12.24

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1 ω)
	− 0.1590	− 0.0323	− 0.0059	− 0.0253	− 1.0147	61.3	−6%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	Kf_{11}	$Kf_{0.7}$
100	− 0.862	− 3.725	− 0.651	0.347	− 0.998	0.151	0.018
70	− 0.908	− 1.239	− 0.212	− 0.040	− 0.172	0.225	0.054



编号：03-02-068

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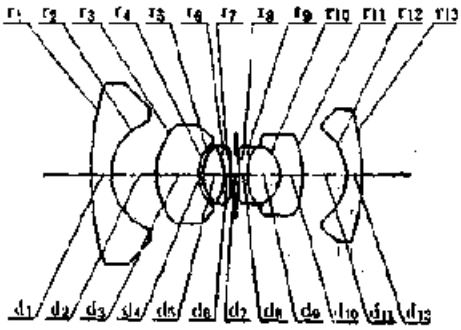
超 广 角 镜 头

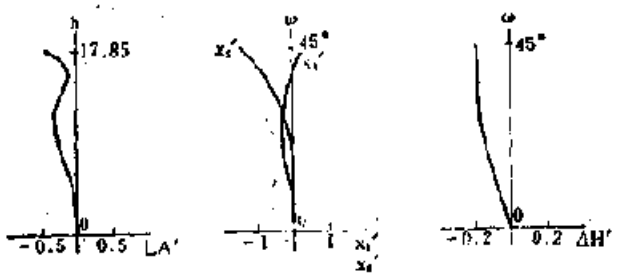
E.F.L＝100　　B.F.L＝28.9　　FNo.＝2.8　　F.A.＝±45°

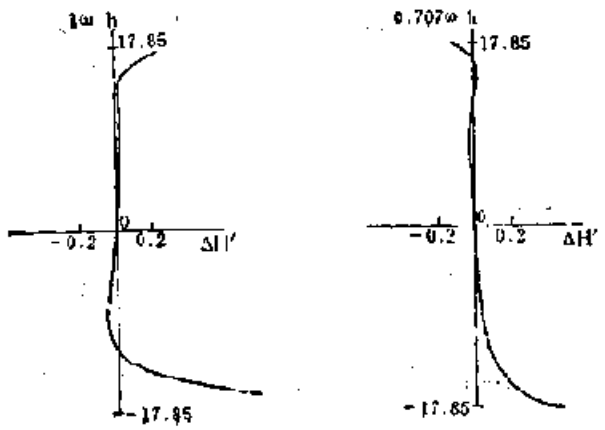


序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	270.70	17.00	1.49388	66.1	8	1225.00	8.30	1.52015	63.0
2	47.95	38.55			9	35.85	29.20	1.62041	60.3
3	68.00	35.28	1.72340	38.0	10	− 29.79	20.40	1.80802	40.7
4	39.72	2.20			11	− 74.72	84.50		
5	43.14	16.90	1.67790	35.5	12	− 42.06	14.00	1.50463	64.7
6	− 45.35	6.80	1.57501	41.3	13	− 176.70			
7	− 792.80	6.00*							

$6.00^* = 3.00 + 3.00$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.0870	− 0.0256	− 0.0507	0.0342	− 0.1984	100	− 0.19%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	− 0.446	− 0.189	0.317	− 1.500	1.817	1.549	0.048
70	− 0.299	− 0.188	− 0.328	− 0.363	0.035	0.176	0.033

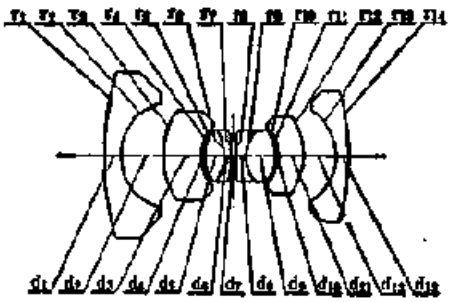




编号：03-02-069

超 广 角 镜 头

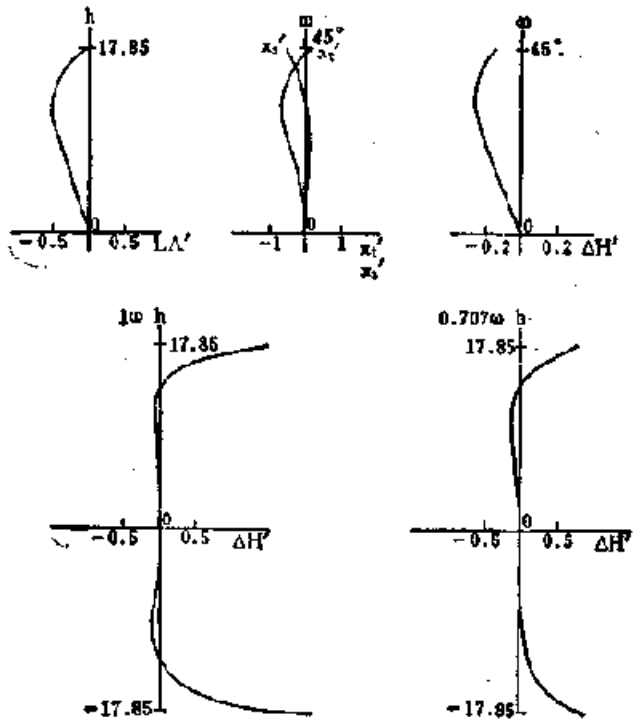
E. F. L＝100　　B. F. L＝32.70　　FNo. ＝2.8　　F. A. ＝±45°



序号	r	d	n_d	v	序号	r	d	n_d	v
1	267.00	17.00	1.49388	66.1	8	393.84	9.55	1.47069	67.3
2	48.21	40.30			9	34.35	27.00	1.55755	67.3
3	67.64	35.16	1.66998	39.2	10	− 41.50	0.70		
4	40.75	3.04			11	− 36.87	24.10	1.85000	29.0
5	45.25	15.90	1.67790	55.5	12	− 63.54	32.00		
6	− 48.00	6.80	1.56138	45.3	13	− 42.55	12.50	1.51823	59.0
7	− 715.00	5.76*			14	− 199.70			

5.76* = 2.88 + 2.88

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.1269	−0.0651	−0.1105	0.1030	−0.2998	100	−0.17%
h 或 ω%	LA′	ΔH′	x_t^c	x_s^c	$x_t^c - x_s^c$	K_{T1}^c	$K_{Te.s}^c$
100	−0.0257	−0.174	0.160	−0.526	0.686	1.865	−0.068
70	−0.5802	−0.269	−0.724	0.008	−0.732	0.833	0.015



编号：03-02-070

广　角　镜　头

E.F.L＝100　　B.F.L＝59.4　　FNo.＝8.5　　F.A.＝±40°

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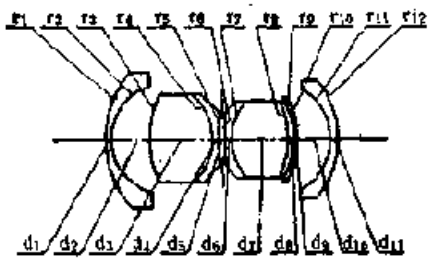
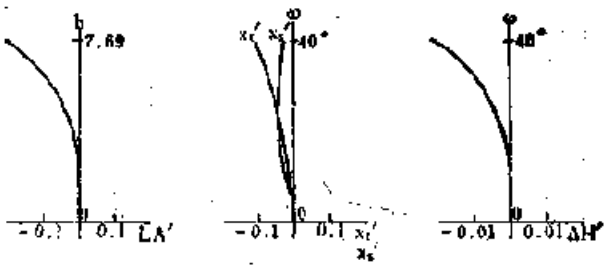
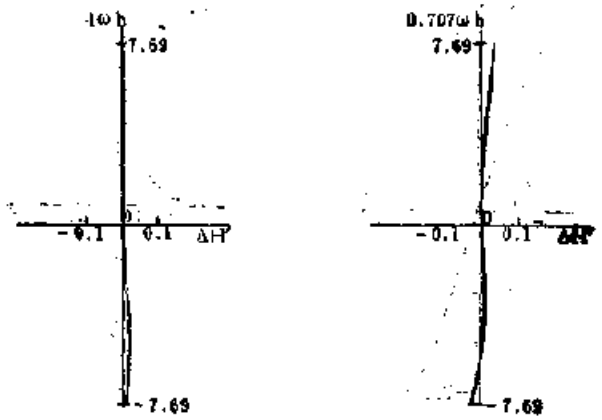


序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	55.62	2.85	1.55839	67.8	7	28.34	32.10	1.65160	58.5
2	28.80	22.45			8	−47.55	3.14		
3	67.32	32.67	1.65663	57.0	9	−39.33	1.35	1.58144	40.8
4	−31.95	2.43	1.53256	46.0	10	−59.53	18.10		
5	212.20	3.80*			11	−28.78	3.80	1.66672	48.4
6	−485.70	2.76	1.54072	47.2	12	−49.80			

3.80* = 1.90 + 2.90

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00642	0.00113	−0.00235	0.00248	−0.00178	83.9	−0.02%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}^4	$K_{T0.7}^4$
100	−0.210	−0.0222	−0.110	−0.032	−0.078	0.00251	0.00400
70	−0.056	−0.0066	−0.062	−0.039	−0.023	0.00844	0.00573





编号：03-02-071

广　角　镜　头

E.F.L=99.9　　B.F.L=57.9　　FNo.=6.5　　F.A.=±40°

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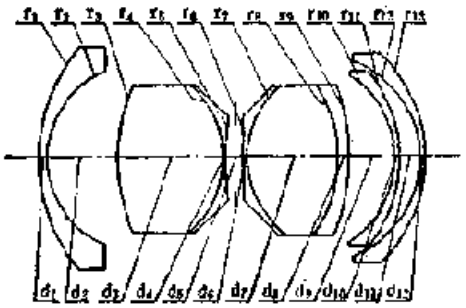
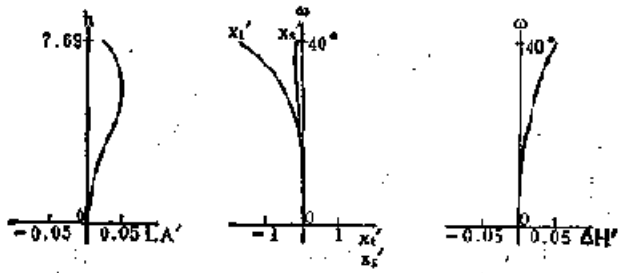
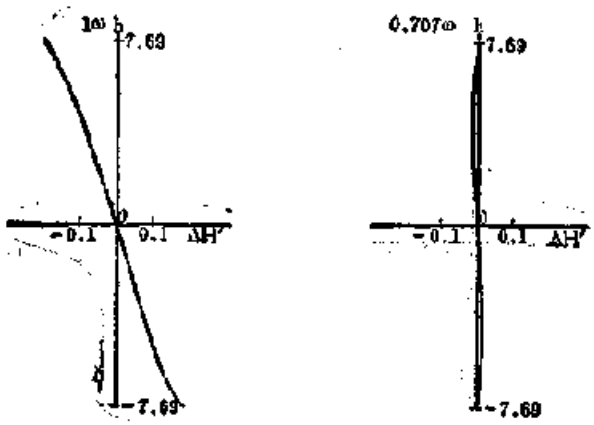


序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	52.75	2.85	1.55823	67.8	8	− 44.00	3.60	1.58100	46.0
2	28.80	22.45			9	− 71.26	15.22		
3	69.00	32.67	1.65663	57.0	10	− 30.80	1.50	1.53172	48.9
4	30.15	1.00	1.53256	46.0	11	− 44.00	6.00		
5	212.20	5.49*			12	− 31.39	1.50	1.53172	48.9
6	− 488.35	1.00	1.54125	47.6	13	− 44.84			
7	28.34	32.10	1.65160	58.5					

5.490* = 2.745 + 2.745

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	0.00186	0.00365	− 0.00091	0.00087	0.00770	83.8	0.05%
h 或 ω %	LA′	ΔH′	x_t	x_s	$x_t^s - x_s^s$	K_{T1}^s	$K_{T0.7}^s$
100	0.0197	0.0479	− 1.842	− 0.256	− 1.586	− 0.0155	− 0.0089
70	0.0434	0.0191	− 0.374	− 0.108	− 0.266	− 0.0009	− 0.0091





编号：03-02-072

大孔径广角摄影物镜

E.F.L=1　　B.F.L=1.0569　　FNo.=1.8　　2ω=±31°

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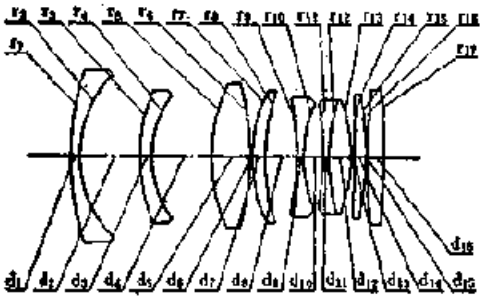
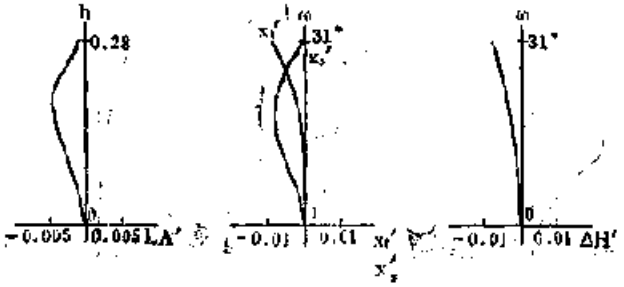
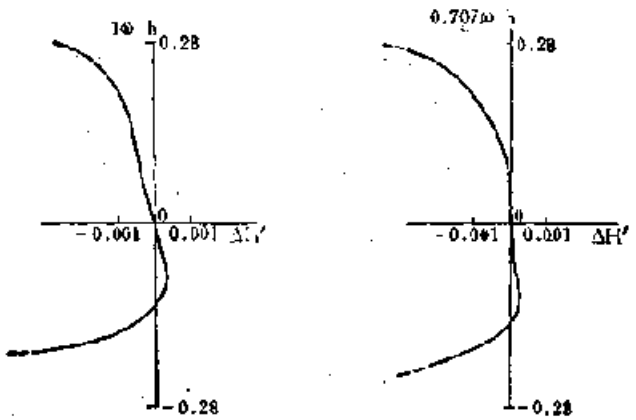


序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	1.4993	0.0688	1.60311	60.68	10	0.8117	0.1128		
2	0.6827	0.3719			11	−1.7678	0.0385	1.75520	27.53
3	0.8333	0.0825	1.62041	60.29	12	1.5595	0.1430	1.62041	60.29
4	0.6302	0.3698			13	−0.8543	0.0028		
5	1.0845	0.2475	1.69100	54.80	14	14.8653	0.0990	1.62041	60.29
6	−1.5771	0.0028			15	−1.4338	0.0028		
7	0.8912	0.0963	1.62041	60.29	16	5.1300	0.0963	1.62041	60.29
8	1.2808	0.1870*			17	−4.3172			
9	−1.3721	0.0413	1.58144	40.80					

0.1870* = 0.0900 + 0.0970

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00294	0.00051	0.00126	−0.00474	−0.00636	0.6	−1.3%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	−0.00116	−0.00795	−0.00885	−0.00044	−0.00841	−0.0136	−0.0021
70	−0.00453	−0.00406	−0.00192	−0.00720	0.00587	−0.0033	−0.0009





编号：03-02-073

大孔径广角摄影物镜

E. F. L = 1　　B. F. L = 0.9047　　FNo. = 1.4　　F. A. = ±26°

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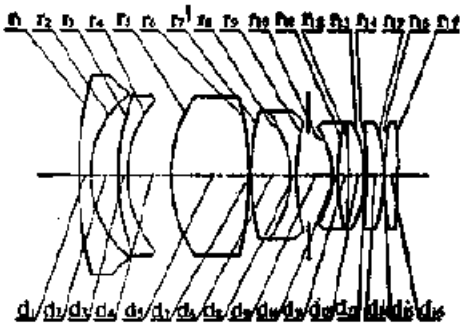
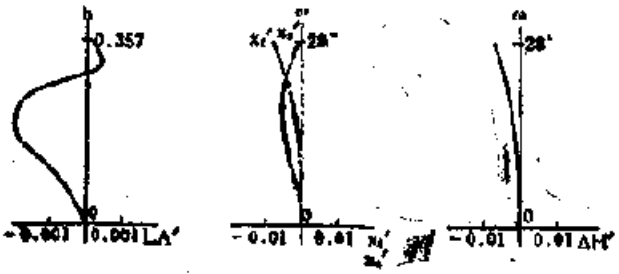
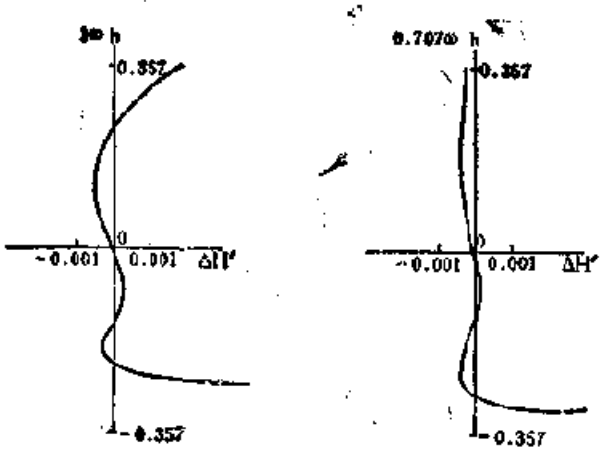


序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	3.2976	0.0825	1.48749	70.04	10	− 0.5981	0.0475	1.58447	37.01
2	0.7758	0.1950			11	2.1779	0.0725		
3	1.5549	0.0700	1.48749	70.04	12	− 3.8169	0.1150	1.69100	54.80
4	0.8561	0.3349			13	− 0.8250	0.0025		
5	1.0554	0.5695	1.77551	37.90	14	− 11.2484	0.1300	1.69100	54.80
6	− 2.1514	0.0050			15	− 1.2509	0.0025		
7	1.9178	0.2275	1.71300	53.89	16	2.1947	0.1000	1.69100	54.80
8	− 0.7254	0.0550	1.78470	26.10	17	− 7.1710			
9	1.8968	0.2550*							

0.2550* = 0.1000 + 0.1550

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.00327	0.00039	0.00119	− 0.00539	− 0.00698	0.53	− 1.2%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	$K f_{t1}$	$K f_{0.7}$
100	0.00007	− 0.0066	− 0.0071	− 0.0081	− 0.0070	− 0.6472	0.0016
70	− 0.00176	− 0.0034	− 0.0036	− 0.0057	0.0031	0.0911	− 0.0004





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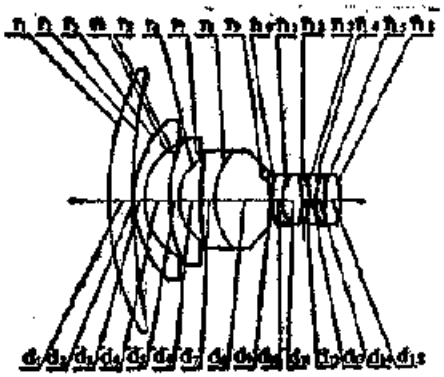
编号：03-02-074

广　角　镜　头

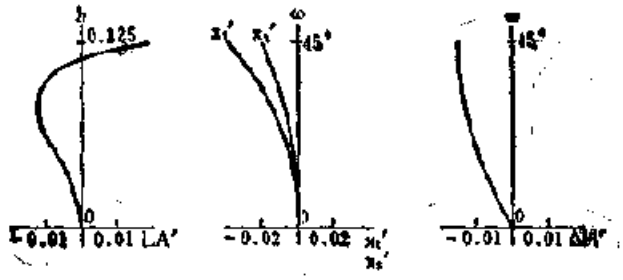
E. F. L = 1　　B. F. L = 1.6865　　FNo. = 4　　F. A. = ±45°

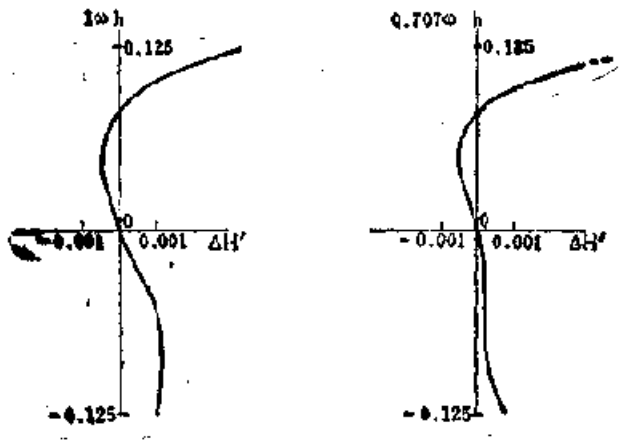


序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	3.2200	0.2695	1.6935	53.6	9	∞	0.0236		
2	7.2340	0.0047			10	0.7267	0.1037	1.7280	38.0
3	1.1905	0.1040	1.6935	53.6	11	0.4259	0.2222	1.6100	38.0
4	0.5783	0.2931			12	−1.0259	0.0875*		
5	1.3700	0.0946	1.6935	53.6	13	−0.7678	0.0496	1.6780	32.2
6	0.5201	0.2600			14	0.4232	0.1040	1.5160	56.8
7	6.3029	0.1418	1.6200	60.3	15	1.4898	0.1584	1.6780	50.8
8	0.8510	0.6099	1.5500	45.4	16	−0.7358			

0.0875* = 0.0435 + 0.0440

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00153	0.00159	−0.00159	−0.00046	−0.00557	1	−1.5%
h 或 ω %	LA′	ΔH′	x_t^s	x_s^s	$x_t^s - x_s^s$	K_{f1}^s	$K_{f0.7}^s$
100	0.0197	−0.0153	−0.0394	−0.0193	−0.0201	0.0021	0.00059
70	−0.0133	−0.0129	−0.0161	−0.0109	−0.0052	0.0037	0.00026





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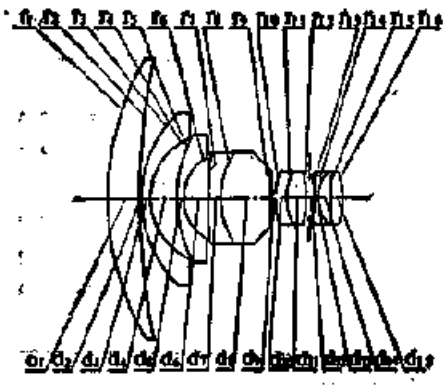
编号：03-02-075

超 广 角 镜 头

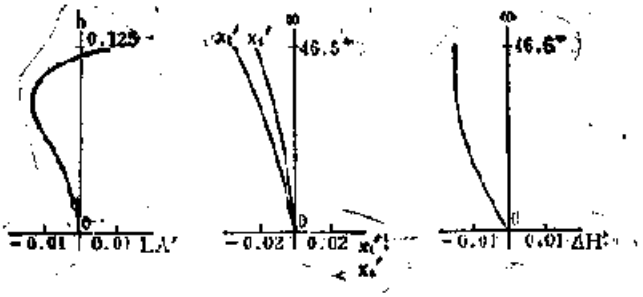
E.F.L.= 1　　B.F.L=1.8239　　FNo. = 4　　F.A. ≒ ±46.6°

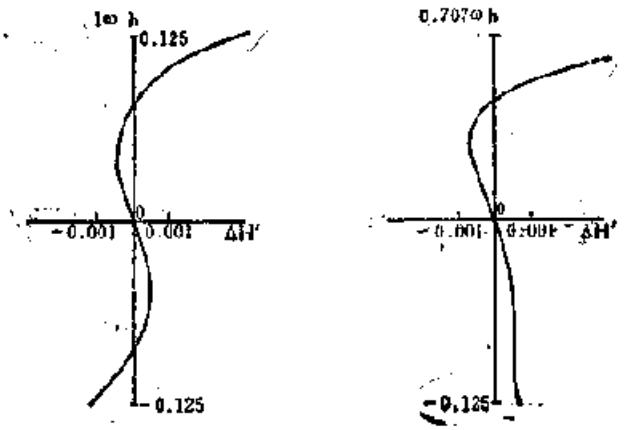


序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	2.9820	0.3722	1.5878	68.2	9	−9.0080	0.0424		
2	7.6730	0.0047			10	0.8065	0.1107	1.7352	41.0
3	1.3197	0.1035	1.6935	53.6	11	0.5397	0.2261	1.6166	36.6
4	0.7171	0.2874			12	−1.2388	0.0872*		
5	1.5198	0.0848	1.6935	53.6	13	−0.9116	0.0495	1.6889	31.1
6	0.5093	0.2615			14	0.4306	0.1272	1.5145	54.7
7	14.7230	0.1413	1.6428	58.4	15	1.6246	0.1413	1.6935	53.6
8	0.8413	0.5654	1.5731	42.7	16	−0.7538			

0.0872* = 0.0432 + 0.0440

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00146	0.00204	−0.00305	−0.00041	−0.00305	1.05	−1.4%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.0083	−0.01430	−0.0334	−0.0206	−0.0128	0.00074	0.00003
70	−0.0142	−0.01436	−0.0325	−0.0130	−0.0095	0.00376	0.00040





编号：03-02-076

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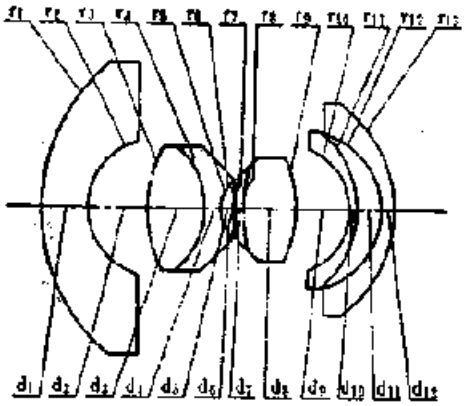
广　角　物　镜

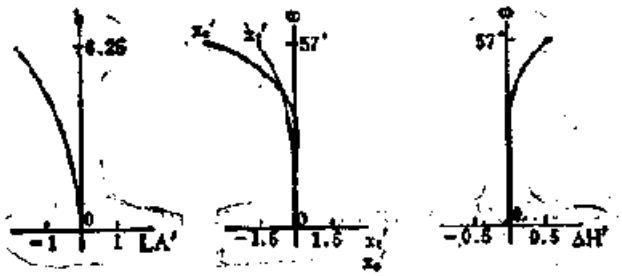
E. F. L＝100.9　　B. F. L＝41　　FNo. ＝8　　F. A. ＝±57°

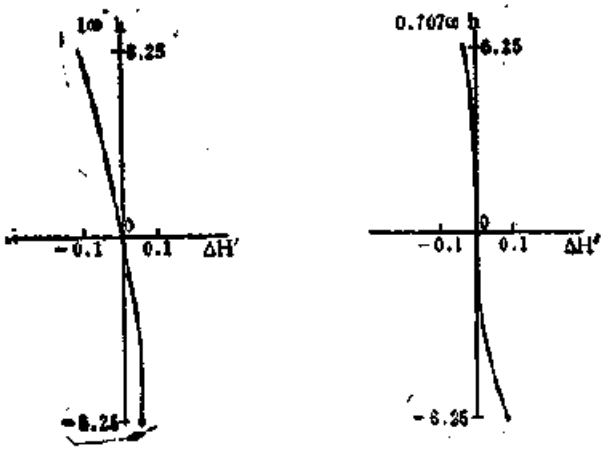


序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	103.30	25.31	1.69661	55.6	8	101.00	28.00	1.7053	53.9
2	37.96	34.17			9	− 69.85	29.61		
3	69.35	31.36	1.72952	36.6	10	− 36.70	4.05	1.48744	70.0
4	− 40.75	9.11	1.69823	31.1	11	− 54.57	13.64		
5	20.78	6.83	1.71317	36.5	12	− 43.96	6.33	1.48744	70.0
6	2842.00	0.30*			13	− 71.72			
7	− 2480.30	4.39	1.71079	29.7					

0.30* = 0.15 + 0.15

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.01331	0.00059	−0.00716	0.01457	0.00732	155.4	0.3%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{71}'	$K_{70.7}'$
100	−1.862	0.536	−1.456	−3.783	2.287	−0.0265	−0.0139
70	−0.898	0.056	−0.399	−0.374	−0.025	0.0167	0.0085

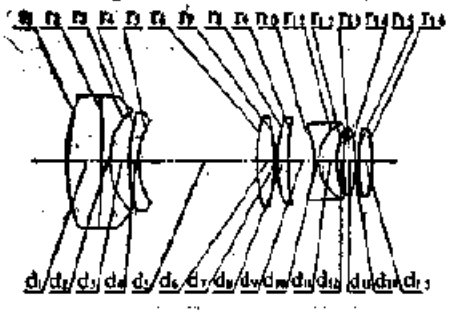




编号：03-02-077

反 远 距 型 物 镜

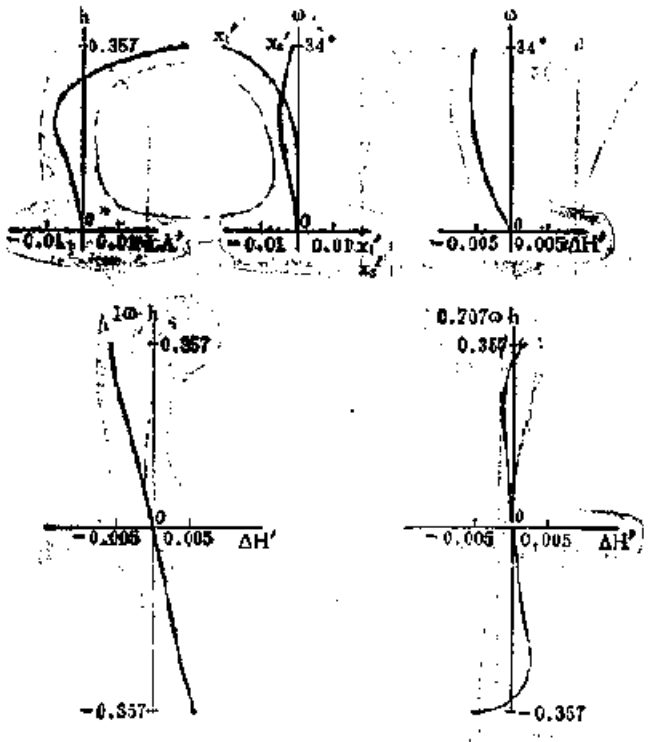
E.F.L＝1　B.F.L＝1.467　FNo.＝1.4　F.A.＝±34°



序号	r	d	n_d	ν	序号	r'	d	n_d	ν
1	3.406	0.640	1.74900	35.00	9	7.090	0.461		
2	−21.854	0.148	1.50970	64.44	10	−1.737	0.083	1.76035	30.28
3	1.206	0.398			11	0.755	0.335	1.74900	35.00
4	4.371	0.140	1.70000	41.20	12	1.410	0.083*		
5	1.311	2.195			13	2.790	0.293	1.65100	58.60
6	3.015	0.315	1.57427	52.02	14	−1.737	0.004		
7	−3.015	0.006			15	3.406	0.252	1.63945	55.70
8	1.942	0.246	1.65100	58.60	16	−3.406			

0.083* = 0.043 + 0.040

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.01005	0.00707	−0.00397	−0.00389	−0.00868	0.67	−0.8%
h 或ω%	LA'	ΔH'	x_t'	x_s'	$x_t'-x_s'$	K_{21}'	$K_{20.7}'$
100	0.02855	−0.00532	−0.02192	−0.00145	−0.02047	−0.00022	−0.00055
70	−0.00726	−0.00615	−0.00247	−0.00452	−0.00205	−0.00162	−0.00064



编号：03-02-078

大孔径摄影物镜

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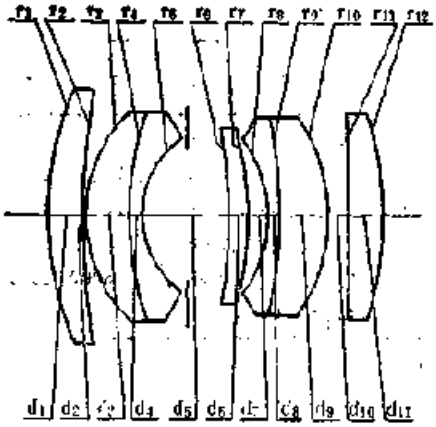
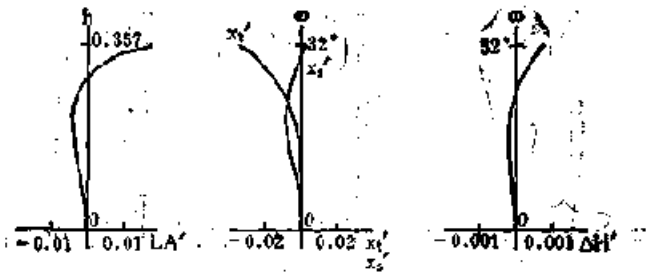
E.F.L＝1　　B.F.L＝0.5462　　FNo.＝1.4　　F.A.＝±32°

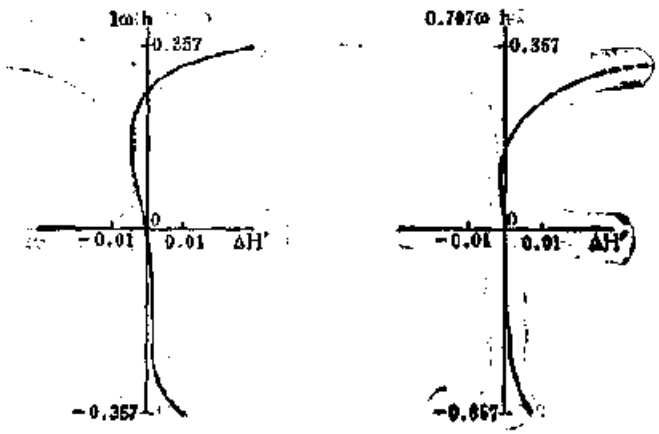


序号	r	d	n_e	ν	序号	r	d	n_e	ν
1	0.34171	0.1000	1.72341	50.10	7	− 0.8639	0.0494		
2	2.5629	0.0006			8	− 0.3448	0.0374	1.76167	27.34
3	0.3812	0.1297	1.78990	48.0	9	− 1.3714	0.1314	1.78990	48.0
4	0.8039	0.0374	1.70444	29.84	10	− 0.4575	0.0171		
5	0.2552	0.2309*			11	− 20.0000	0.1371	1.72058	47.50
6	− 1.6077	0.0554	1.78990	48.0	12	− 0.8417			

0.23090* = 0.11545 + 0.11545

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.00508	0.00041	0.00216	− 0.00892	0.00011	0.63	0.12%
h 或ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T2}'	$K_{10.7}'$
100	0.0162	0.00076	− 0.0351	0.0010	− 0.0361	0.0201	− 0.0003
70	− 0.0036	− 0.00004	− 0.0072	− 0.0084	0.0012	0.0781	− 0.0056





编号：03-02-079

大孔径摄影物镜

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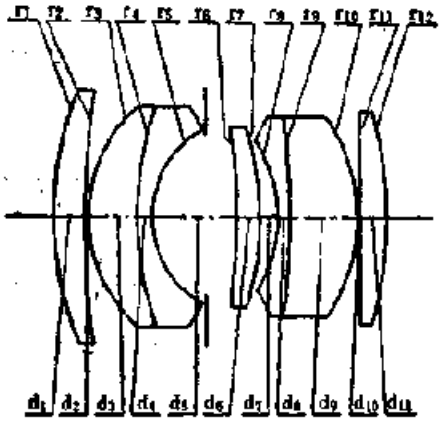
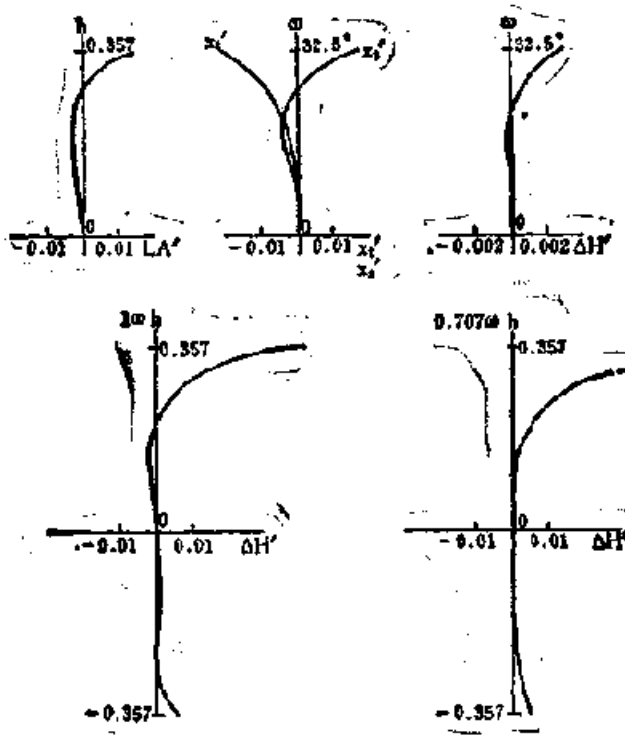
E.F.L=1.04　　B.F.L=0.6116　　FNo.=1.4　　F.A.=±32.5°



序号	r	d	n_e	ν	序号	r	d	n_e	ν
1	0.8824	0.0894	1.72056	47.69	7	−0.8984	0.0514		
2	2.7820	0.0078			8	−0.3582	0.0338	1.78167	27.34
3	0.3996	0.1348	1.78990	48.0	9	−1.9892	0.1800	1.78990	48.0
4	0.8984	0.0388	1.70444	29.84	10	−0.4858	0.0078		
5	0.2654	0.2400*			11	∞	0.0756	1.78990	48.0
6	−1.6720	0.0576	1.78990	48.0	12	−1.0658			

0.2400* = 0.1200 + 0.1200

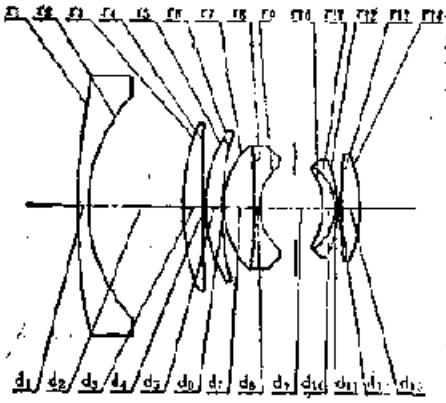
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00352	0.00030	0.00144	−0.00618	−0.00026	0.65	0.4%
h或ω%	LA′	ΔH′	x_1^s	x_2^s	$x_1^s - x_2^s$	K_{T1}^s	$K_{T0.7}^s$
100	0.0153	0.0029	−0.0223	0.0175	−0.0398	0.0237	0.0009
70	−0.0019	−0.000009	−0.0047	−0.0032	0.0015	0.0511	0.0055



编号：03-02-080

广　角　物　镜

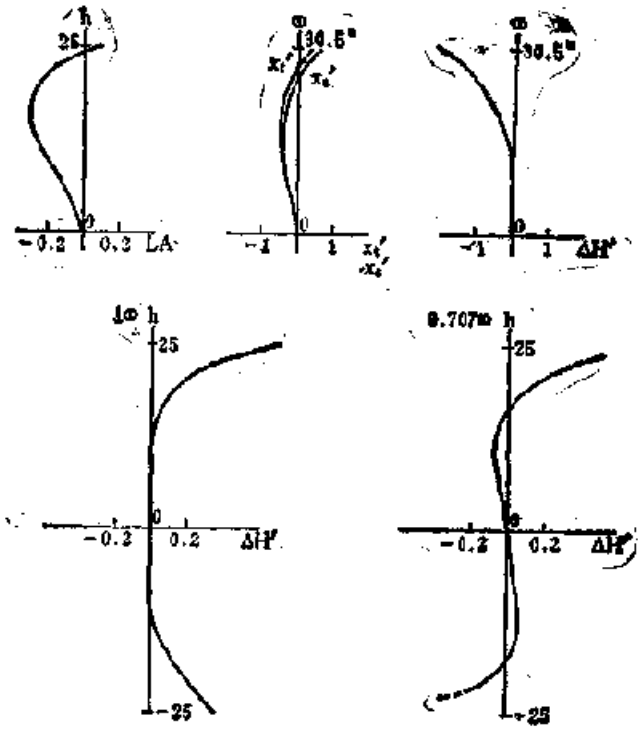
E. F. L＝100　　B. F. L＝71.3　　FNo. ＝ 2　　F. A. ＝ ±30.5°



序号	r	d	n_d	v	序号	r	d	n_d	v
1	314.2040	4.9840	1.56017	61.00	8	-364.0050	2.6564	1.64838	33.86
2	73.4716	44.7510			9	24.6256	28.6548*		
3	107.5050	7.9429	1.56296	50.90	10	- 32.1529	5.9440	1.65262	63.30
4	911.5890	0.2367			11	- 21.9218	1.6964	1.53232	48.90
5	56.3365	8.9423	1.67050	47.59	12	- 42.9625	0.2236		
6	126.3600	0.1315			13	259.4580	9.0344	1.50476	66.94
7	39.9774	14.9126	1.67811	55.58	14	- 67.8563			

28.6548* = 15.6490 + 13.0058

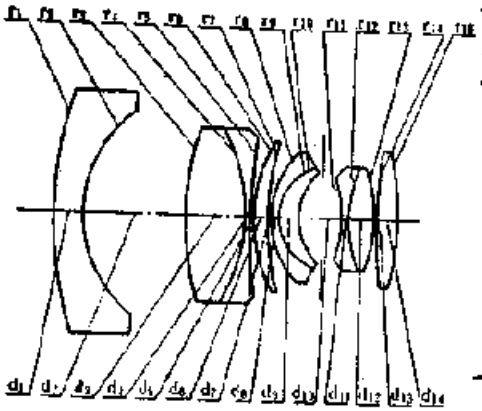
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	- 0.1798	- 0.0234	- 0.0486	- 0.1446	- 0.3193	58.6	- 3.8%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.063	- 2.247	3.378	0.635	- 0.257	0.522	0.066
70	- 0.323	- 0.493	- 0.522	- 0.355	- 0.167	- 0.466	0.0660



编号：03-02-081

广　角　物　镜

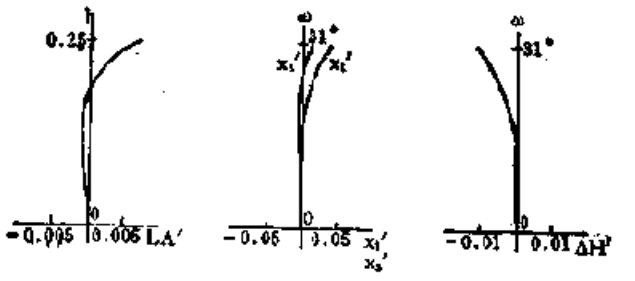
E.F.L=0.868　　B.F.L=0.832　　FNo.=2　　F.A.=±31°

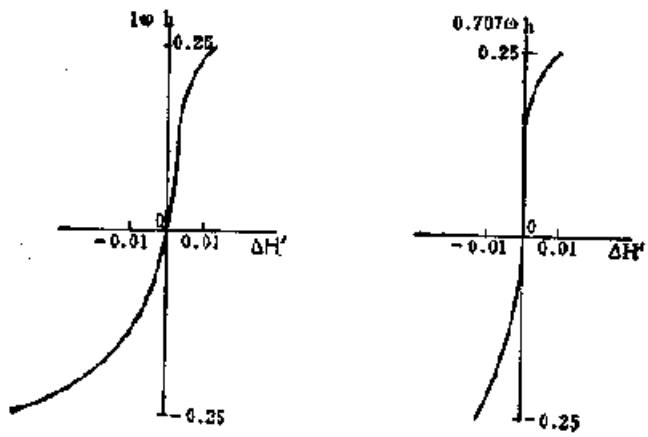


序号	r	d	n	ν	序号	r	d	n	ν
1	1.70	0.14	1.50	67	9	0.25	0.10	1.61	59
2	3.60	0.48			10	0.31	0.19*		
3	1.20	0.23	1.69	54	11	−0.60	0.04	1.60	38
4	−0.80	0.03	1.57	51	12	0.80	0.12	1.59	61
5	2.90	0.01			13	−0.65	0.01		
6	0.70	0.07	1.71	54	14	3.30	0.09	1.71	34
7	1.30	0.01			15	−1.50			
8	0.43	0.03	1.60	38					

0.19* = 0.13 + 0.06

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00082	−0.00127	0.00106	−0.00320	−0.00279	0.594	−1.9%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{11}'	$K_{0.7}'$
100	0.00632	−0.0112	0.0331	0.0120	0.0211	−0.0145	−0.0057
70	−0.00083	−0.0029	0.0074	−0.0039	0.0113	−0.0009	−0.0025





编号：03-02-082

改进的高斯型五片式摄影镜头

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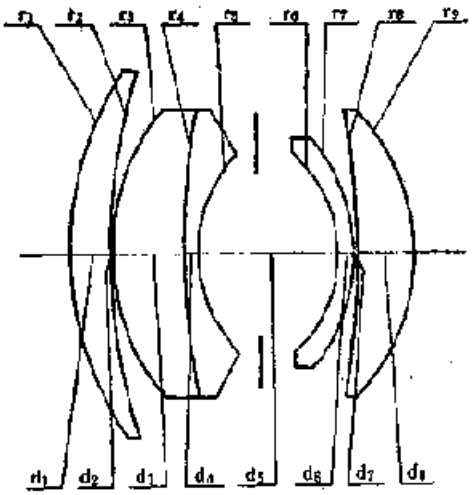
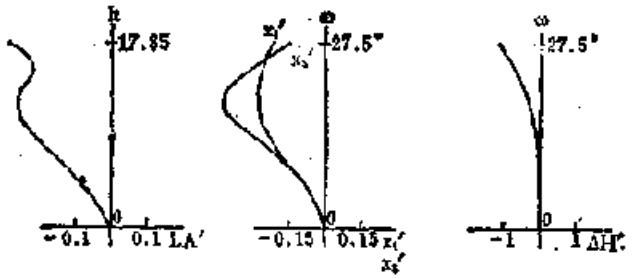
E.F.L＝100.7　　B.F.L＝78.3　　FNo.＝2.8　　F.A.＝±27.5°

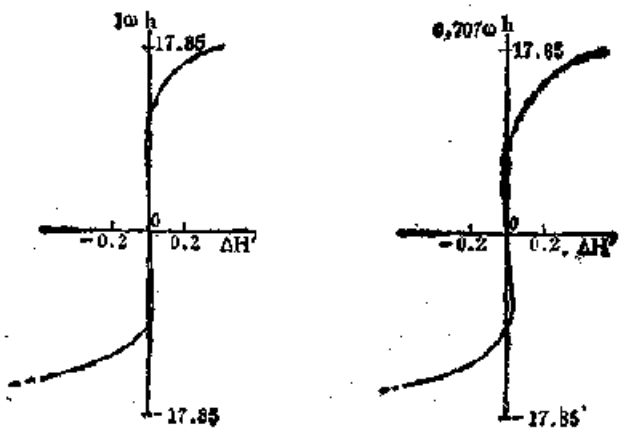


序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	45.6	5.50	1.6668	33.1	6	− 18.3	2.40	1.7283	28.3
2	83.0	0.12			7	− 24.3	0.12		
3	30.6	9.80	1.6935	53.5	8	− 123.0	7.60	1.6204	60.3
4	109.2	2.10	1.6889	31.1	9	− 26.0			
5	19.8	19.40*							

19.40* = 9.70 + 9.70

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.0785	0.0243	0.0118	−0.1057	−0.1667	52.5	− 2.2%
h 或 ω %	LA′	ΔH′	x_t^*	x_t'	$x_t' - x_t'$	K_{T1}^*	$K_{T0.7}$
100	− 0.291	− 1.166	− 0.255	− 0.144	− 0.111	− 1.509	− 0.105
70	− 0.270	− 0.299	− 0.298	− 0.448	0.150	− 0.932	− 0.052





编号：03-02-083

超 广 角 镜 头

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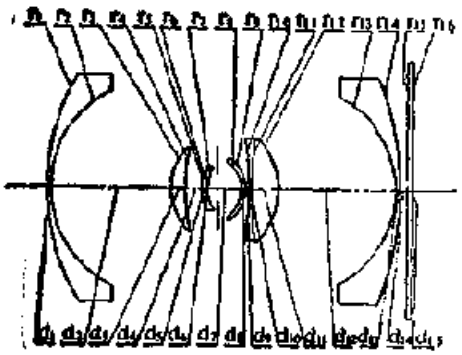
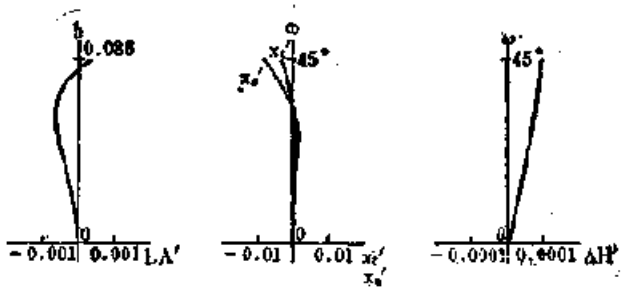
E.F.L＝1　　B.F.L＝0　　FNo.＝5.8　　F.A.＝±45°

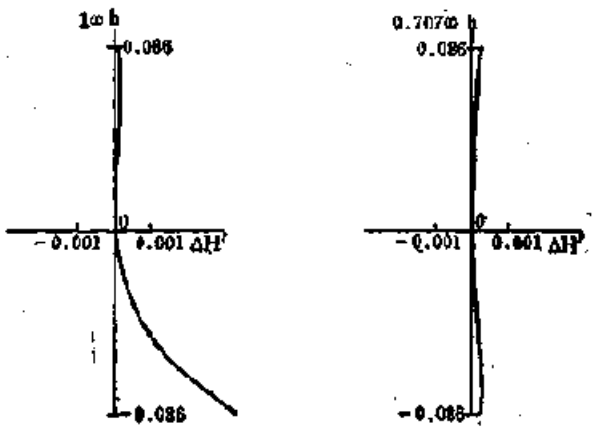


序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	1.5172	0.0341	1.700	56.2	9	−0.3050	0.0280		
2	0.7949	0.8965			10	−3.8944	0.0170	1.651	33.6
3	0.4485	0.1035	1.613	36.9	11	4.8691	0.2062	1.651	58.6
4	1.4801	0.1188			12	−0.5143	0.8640		
5	0.3500	0.0239	1.748	45.8	13	−0.7712	0.0343	1.720	50.3
6	0.9794	0.0128	1.748	27.8	14	−2.2429	0.0502		
7	0.2832	0.2457*			15	∞	0.0417	1.524	58.8
8	−0.2413	0.0202	1.801	25.5	16	∞			

0.2457* = 0.1400 + 0.1457

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.000044	−0.000098	0.000011	0.000074	−0.000210	1	0.009%
h 或 ω%	LA′	ΔH′	x_t^s	x_s^s	$x_t^s - x_s^s$	K_{T1}^s	$K_{TD.7}^s$
100	0.00034	0.000095	−0.00350	−0.00785	0.00435	0.00180	0.00086
70	−0.00072	0.000078	0.00001	0.00002	−0.00003	0.000184	0.000156





编号：03-02-084

超 广 角 镜 头

E.F.L＝1　　B.F.L＝0.1655　　FNo.＝5.8　　F.A.＝±45°

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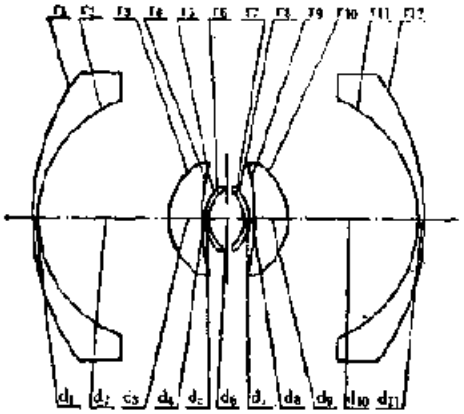
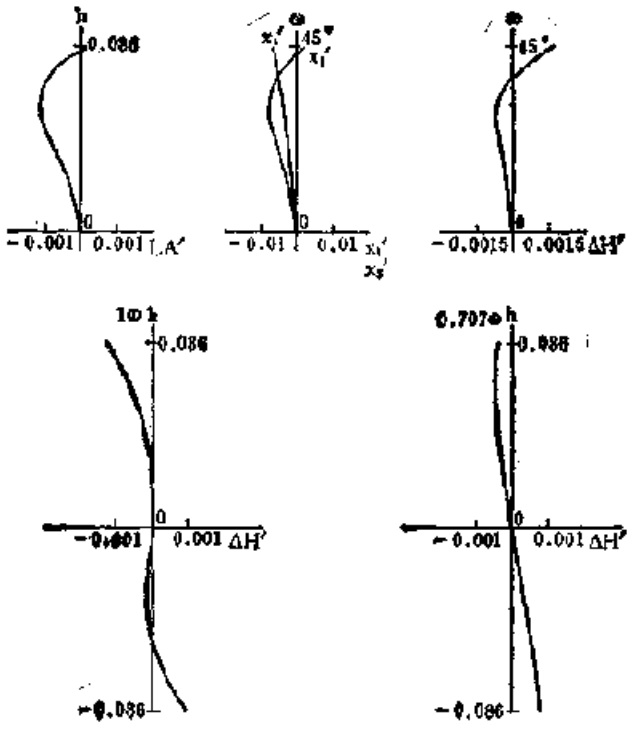


序号	r	d	nD	ν	序号	r	d	nD	ν
1	1.51712	0.03408	1.700	56.2	7	−0.21875	0.02130	1.748	27.9
2	0.79484	0.81275			8	−0.26565	0.00102		
3	0.41764	0.20318	1.613	59.3	9	−1.29659	0.21553	1.651	58.6
4	1.21430	0.03216			10	−0.41553	0.80937		
5	0.27141	0.02130	1.748	27.9	11	−0.76831	0.03408	1.748	27.9
6	0.21875	0.23346*			12	−1.49349			

0.23346* = 0.11673 + 0.11673

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.000071	0.000028	−0.000100	0.0000006	−0.000463	1	0.17%
h或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{Tt}'	$K_{T0.7}'$
100	0.00026	0.00173	0.00178	−0.00694	0.00872	−0.000055	−0.000125
70	−0.00121	−0.00073	−0.00852	−0.00356	−0.00496	0.000274	0.000063



编号: 03-02-085

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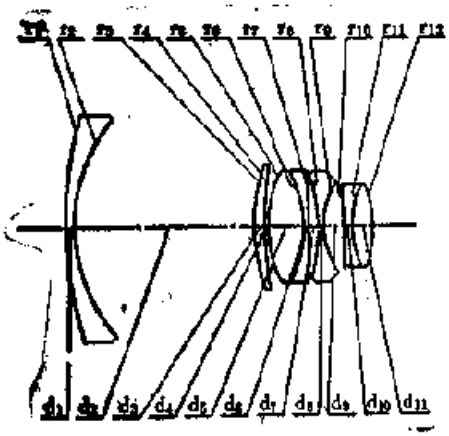
广　角　物　镜

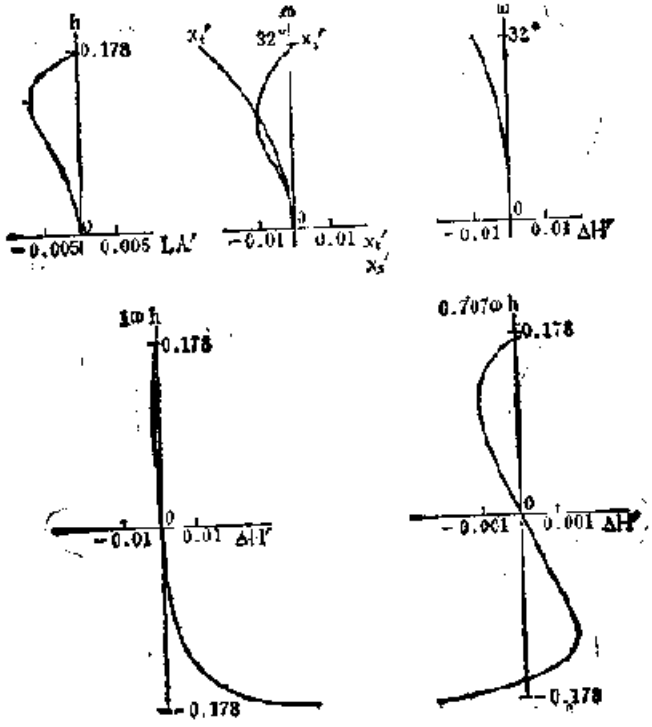
E.F.L = 1　　B.F.L = 1　　FNo. = 2.8　　F.A. = ±32°



序号	r	d	n_d	v	序号	r	d	n_d	v
1	2.030	0.045	1.60557	60.02	7	− 6.597	0.044		
2	0.936	1.001			8	− 0.970	0.040	1.62578	35.74
3	1.056	0.060	1.70000	41.18	9	0.463	0.107*		
4	3.200	0.006			10	− 12.730	0.051	1.62578	35.74
5	0.644	0.203	1.69100	54.8	11	0.567	0.165	1.69100	54.8
6	− 0.671	0.027	1.85100	58.6	12	− 0.650			

0.107* = 0.057 + 0.050

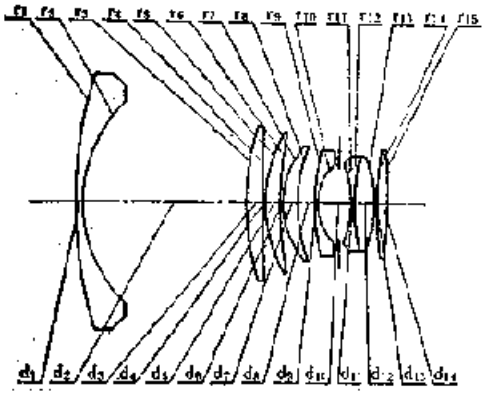
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	OP(1ω)
	− 0.00139	0.00039	− 0.00032	− 0.00153	− 0.00238	0.63	− 1.6%
h或ω%	LA′	ΔH′	x_t^s	x_s	$x_t^s - x_s'$	K_{T1}^s	$K_{To.7}^s$
100	0.00026	− 0.00938	− 0.0264	0.0011	− 0.0275	0.02148	0.00191
70	− 0.00679	− 0.00320	− 0.0126	− 0.0094	− 0.0032	− 0.00099	0.00021



编号：03-02-086

广 角 摄 影 物 镜

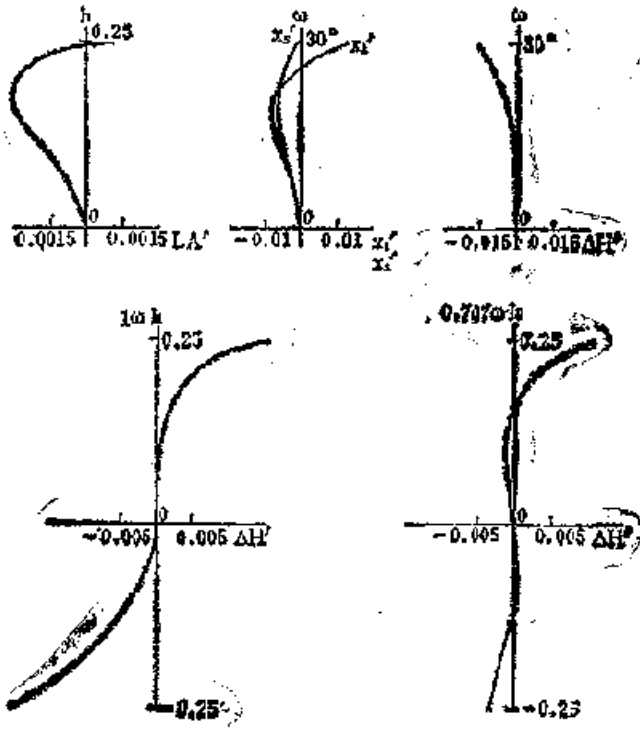
E.F.L=0.998　　B.F.L=0.955　　FNo.=2　　F.A.=±30°



序号	r	d	n_d	ν_d	序号	r	d	n_d	ν_d
1	2.378	0.044	1.6127	58.6	9	1.211	0.020	1.6254	35.6
2	0.846	1.023			10	0.357	0.209*		
3	1.634	0.099	1.6204	60.3	11	−0.625	0.020	1.6364	35.4
4	11.464	0.014			12	1.200	0.124	1.5968	55.61
5	0.885	0.094	1.6127	58.6	13	−0.729	0.005		
6	3.363	0.006			14	2.449	0.085	1.5968	55.61
7	0.556	0.107	1.6425	58.09	15	−2.945			
8	1.271	0.092							

0.209* = 0.105 + 0.104

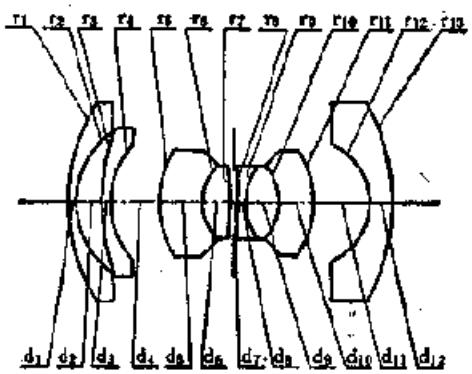
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1∞)
	−0.00131	−0.00045	−0.00075	−0.00189	−0.00462	0.58	−2.8%
h 或 ω%	LA′	ΔH′	x_1^t	x_3^t	$x_1^t - x_3^t$	K_{T1}^t	$K_{T0.7}^t$
100	0.00106	−0.0162	0.0127	−0.0015	0.0142	−0.00271	−0.00362
70	−0.00321	−0.0046	−0.0084	−0.0074	−0.0010	0.00414	−0.00066



编号：03-02-087

五组元超广角物镜

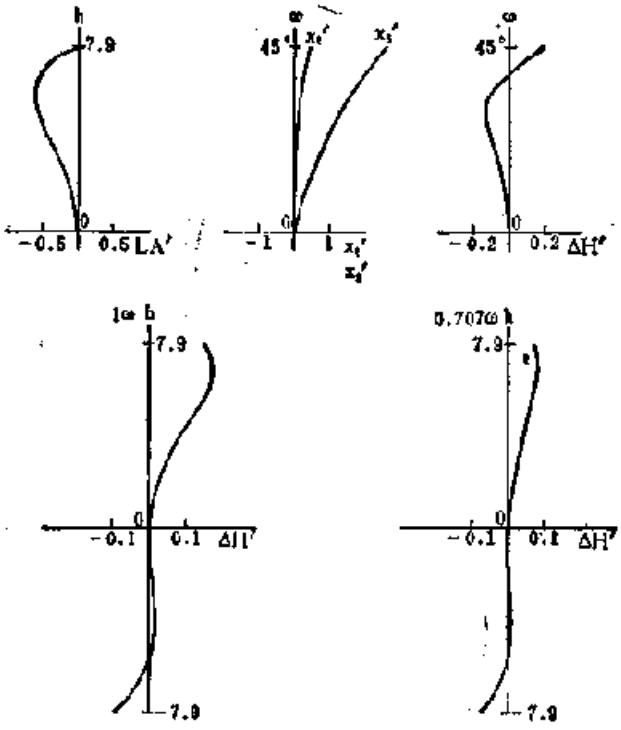
E.F.L＝89.94　　B.F.L＝67.65　　FNo.＝6.3　　F.A.＝±45°



序号	r	d	nd	ν	序号	r	d	nd	ν
1	73.93	3.00	1.50380	64.7	8	－166.00	1.93	1.54579	59.6
2	35.30	10.70			9	21.23	15.20	1.60000	60.7
3	88.35	3.05	1.48697	70.3	10	－ 20.46	13.90	1.71966	29.3
4	35.30	20.30			11	－ 38.82	23.10		
5	39.35	18.30	1.72050	50.3	12	－ 26.68	9.40	1.64200	58.1
6	18.28	11.30	1.60739	53.3	13	－ 79.85			
7	－135.26	3.30*							

3.30* = 1.65 + 1.65

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	－0.4219	－0.0034	－0.0178	0.0477	－0.0682	99.9	0.18%
h或ω%	LA′	ΔH′	x_t	x_s'	$x_t'-x_s'$	K_{t1}'	$K_{T0.7}'$
100	0.041	0.178	0.447	2.543	－2.096	0.0288	0.0758
70	－ 0.583	－0.130	0.179	1.419	－1.240	－0.0065	0.0276



⑥

⑲

编号：03-02-088

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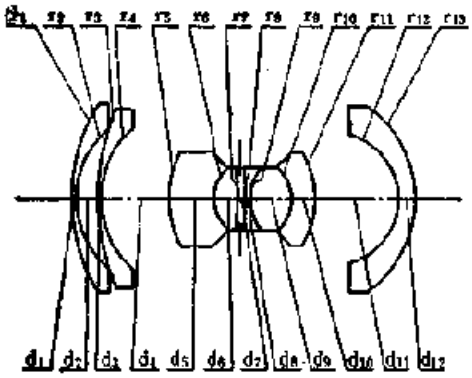
五组元超广角物镜

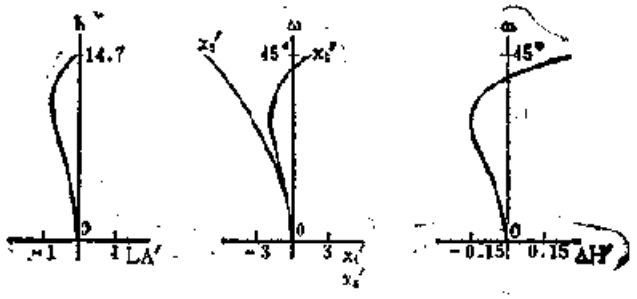
E.F.L＝99.95　　B.F.L≒20.5　　FNo.＝3.4　　F.A.＝±45°



序号	r	d	n_d	v	序号	r	d	n_d	v
1	138.19	3.4	1.50380	66.7	8	−346.44	3.8	1.56993	57.5
2	73.80	17.8			9	41.93	34.3	1.62500	59.0
3	162.28	3.4	1.48697	70.3	10	− 31.48	19.6	1.71966	29.3
4	74.64	56.2			11	− 76.36	69.6		
5	76.38	40.1	1.72050	50.3	12	− 55.28	12.5	1.64200	58.1
6	33.62	18.2	1.60739	51.0	13	− 93.62			
7	−267.23	6.4*							

6.4* = 3.2 + 3.2

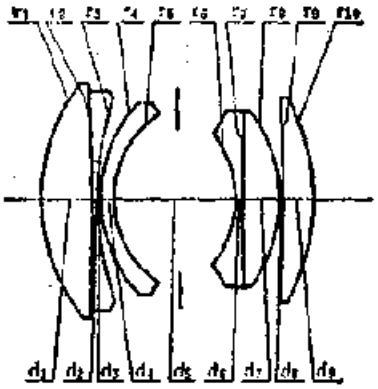
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.0999	−0.0355	−0.0038	−0.2345	−0.1682	99.9	0.27%
h 或 ω%	LA′	ΔH′	x_t	x_s	$x_t'-x_s'$	K'_{T1}	$K'_{T0.7}$
100	− 0.113	0.271	1.272	− 7.448	8.720	0.275	0.139
70	− 0.741	− 0.152	− 1.910	− 3.505	1.586	0.100	0.005



编号：03-02-089

高斯型四组元广角物镜

E.F.L＝100　　B.F.L＝76.02　　FNo.＝2.8　　F.A.＝±30.6°



序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	42.8325	11.6958	1.7200	50.3	6	− 23.7632	1.2989	1.7618	26.5
2	360.7830	1.3042	1.6676	41.9	7	360.7830	8.3722	1.6645	35.9
3	74.7543	0.1294			8	− 30.7973	0.4102		
4	30.7973	4.7330	1.7618	26.5	9	−360.7830	6.1214	1.7440	44.9
5	22.7214	27.7134*			10	− 46.8675			

27.7134* = 14.1444 + 13.5690

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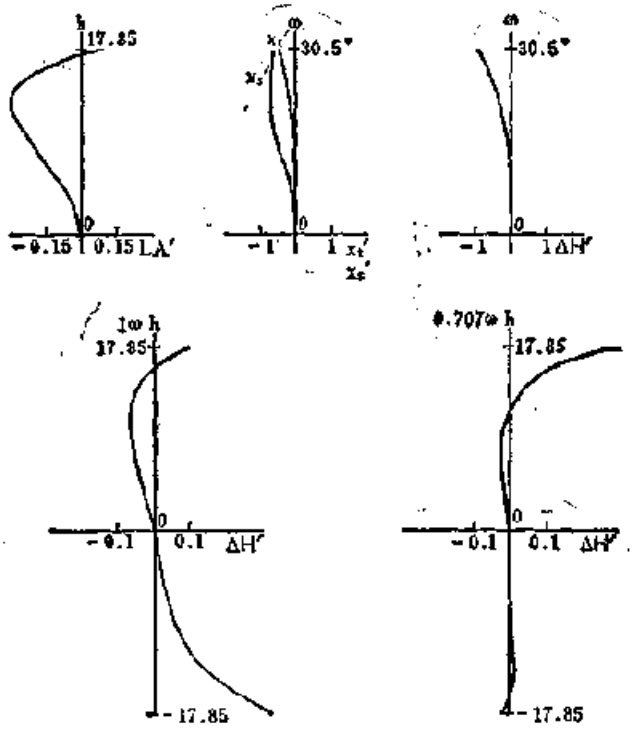
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.0703	0.0087	0.0419	−0.1691	−0.2207	58.6	− 1.7%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{71}'	$K_{70.7}'$
100	0.085	−0.970	− 0.489	− 0.637	0.238	0.226	0.034
70	− 0.299	− 0.295	− 0.148	− 0.714	0.566	0.153	0.014



编号：03-32-090

高斯型四组元广角物镜

E.F.L＝100　　B.F.L＝84.53　　FNo.＝2.8　　F.A.＝±29°

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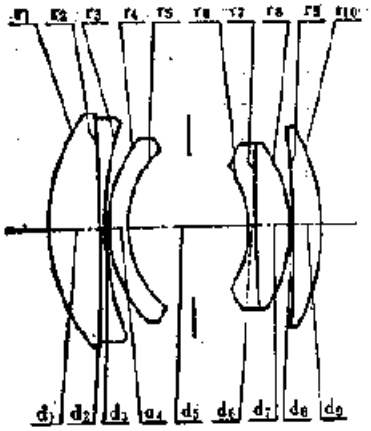
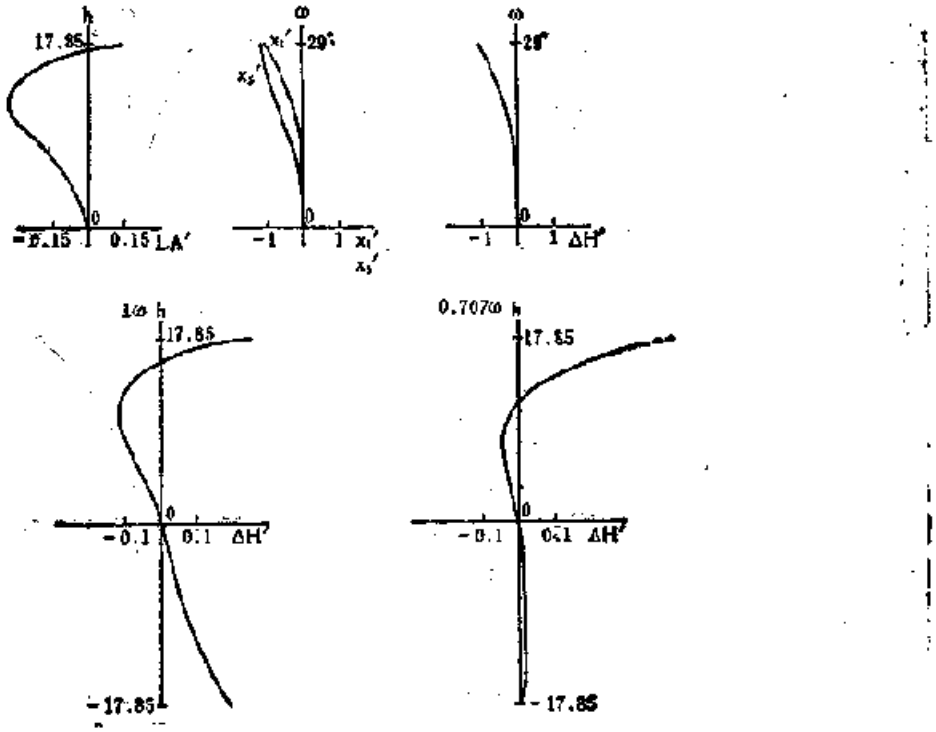


序号	r	d	nd	ν	序号	r	d	nd	ν
1	42.61765	11.68507	1.71700	48.2	6	－24.25732	1.29879	1.76182	26.5
2	－360.4458	1.30278	1.64900	38.2	7	360.4458	8.99159	1.63980	34.6
3	72.23246	0.12888			8	－20.76853	0.09991		
4	30.76853	3.49673	1.76182	26.5	9	－360.4458	7.31316	1.74400	44.9
5	22.70015	27.68711*			10	－46.53649			

27.68711* = 14.14440 + 13.54271

	ΣS_I	ΣS_{II}	ΣS_{III}	ΣS_{IV}	ΣS_V	HI	QP(1ω)
	－0.08047	0.00008	0.04054	－0.16048	－0.29309	55.4	－1.9%
h 或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.141	－1.068	－1.071	－1.119	0.048	0.2269	－0.0058
70	－0.341	－0.355	－0.341	－0.792	0.451	0.2724	0.0164



编号：03-02-091

摄影或电影摄影用的大孔径广角物镜

E.F.L=1　　B.F.L=1.74　　FNo.=1.8　　F.A.=±33°

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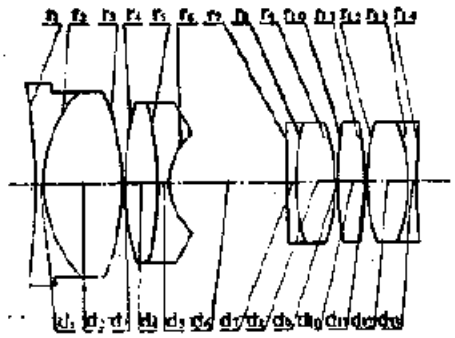
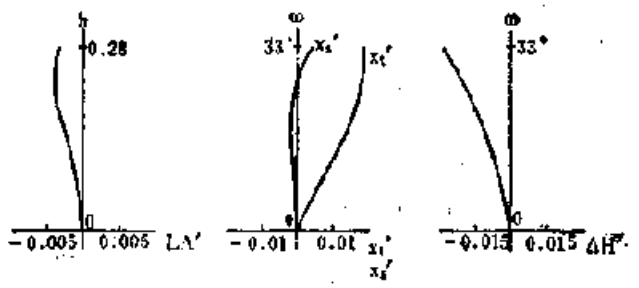


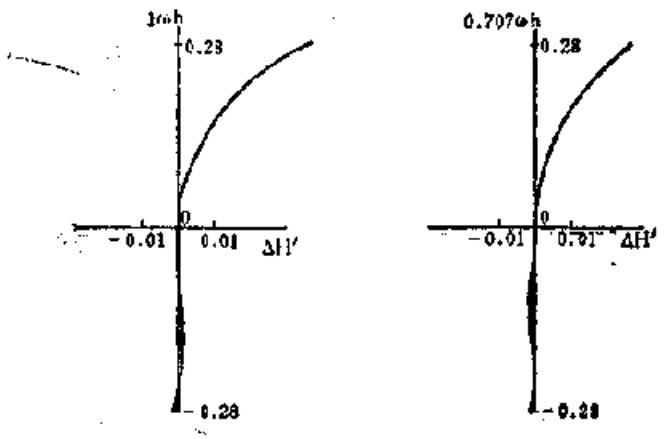
序号	r	d	nD	ν	序号	r	d	nD	ν
1	-12.040	0.098	1.7440	44.9	8	2.828	0.468	1.5687	63.1
2	1.707	0.975	1.5014	56.5	9	-1.950	0.005		
3	-3.061	0.010			10	4.746	0.341	1.6425	58.1
4	3.804	0.410	1.7400	28.2	11	-5.303	0.005		
5	-4.188	0.146	1.5128	67.2	12	2.440	0.512	1.5400	59.7
6	0.791	2.511*			13	-2.091	0.088	1.7282	28.3
7	131.700	0.098	1.6727	32.2	14	14.010			

2.511* = 1.240 + 1.271

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	-0.00166	0.00036	0.00246	-0.00312	-0.02232	0.65	-1.4%

h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{21}'	$K_{10.7}'$
100	-0.0035	-0.0238	0.0178	0.0043	0.0136	0.0172	0.0075
70	-0.0038	-0.0149	0.0168	-0.0009	0.0177	0.0133	0.0052

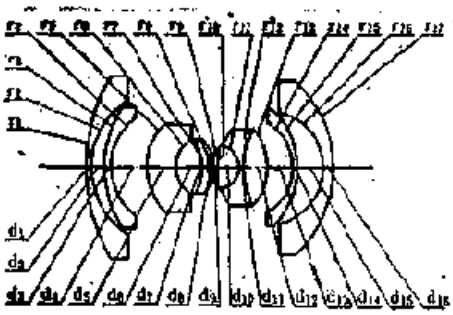




编号：03-02-092

超 广 角 镜 头

E.F.L＝100　　B.F.L＝28.96　　FNo.＝5.6　　F.A.＝±60°



序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	163.25	4.53	1.51680	64.2	10	－1385.90	18.63	1.55232	63.5
2	74.41	14.14			11	－ 22.00	3.76	1.63636	35.3
3	99.80	3.96	1.52854	69.7	12	81.47	22.40	1.74300	33.5
4	53.18	36.17			13	－ 58.62	22.91		
5	62.21	26.82	1.74400	44.8	14	－ 48.76	3.96	1.53172	48.8
6	29.33	22.80	1.65100	41.9	15	－ 83.50	22.29		
7	－ 55.22	6.80	1.59308	35.7	16	－ 51.42	10.30	1.64050	60.1
8	31.80	4.30	1.64350	47.8	17	－111.90			
9	926.20	3.90							

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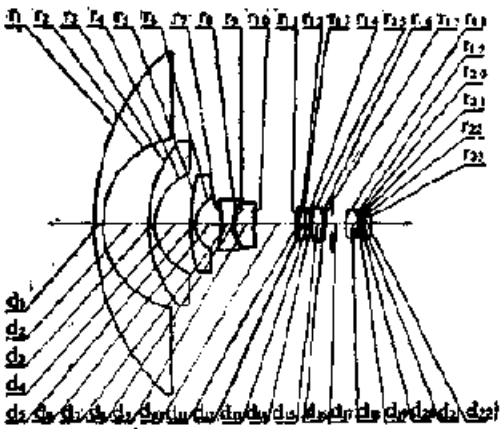
编号：03-02-093

超 广 角 鱼 眼 镜 头

E.F.L＝6.3　　B.F.L＝37.657　　FNo.＝2.8　　F.A.＝±110°



序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	143.470	7.00	1.51680	64.2	13	278.333	3.00	1.64831	33.8
2	52.500	28.00			14	－ 185.420	0.10		
3	76.400	3.80	1.51680	64.2	15	52.030	7.00	1.53375	55.4
4	31.521	21.80			16	－ 28.500	2.00	1.77250	49.5
5	150.000	3.00	1.51680	64.2	17	－ 77.000	13.00		
6	17.100	16.50			18	45.000	5.00	1.51823	59.0
7	－60.000	7.00	1.62041	60.3	19	－ 14.400	0.60	1.79631	40.8
8	22.825	0.60			20	－ 34.500	0.10		
9	23.900	12.60	1.72825	28.3	21	－ 110.000	1.00	1.71736	29.5
10	78.988	25.00			22	35.000	3.50	1.51680	64.2
11	∞	1.80	1.51823	59.0	23	－ 25.763			
12	∞	2.60							

编号：03-02-094

超广角鱼眼镜头

E.F.L=10.2　　B.F.L=25.09　　FNo.=4　　F.A.=±110°

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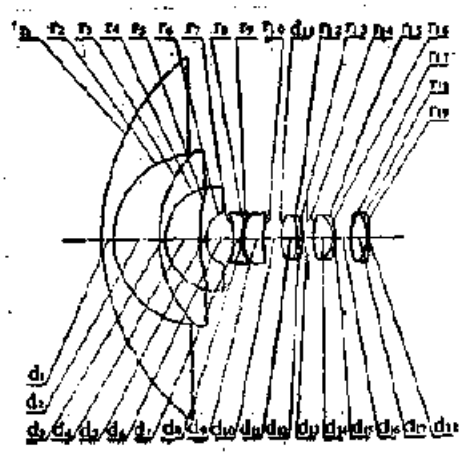
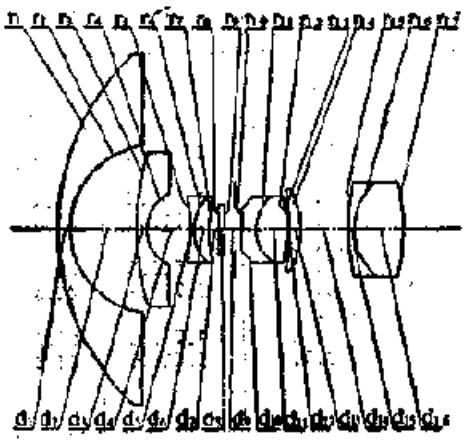


序号	r	d	n_d	ν	序号	r	d	n_d	ν
1	143.470	7.0	1.51860	64.2	11	31.000	10.0	1.54456	54.6
2	52.500	28.0			12	−29.000	2.0	1.78470	26.1
3	76.400	3.8	1.51680	64.2	13	−52.000	8.0		
4	31.521	21.8			14	65.000	11.3	1.51454	54.6
5	126.000	3.0	1.51680	64.2	15	−16.000	1.8	1.74950	35.0
6	17.100	15.5			16	−36.110	10.0		
7	−98.000	7.0	1.62041	60.3	17	40.000	10.0	1.56384	60.8
8	25.500	0.7			18	−26.000	1.0	1.71736	29.5
9	27.160	12.6	1.72825	28.3	19	−678.823			
10	180.000	10.0							

编号：03-02-095

消色差超广角镜头

E.F.L=10　　B.F.L=　　FNo.=5.6　　F.A.=±110°

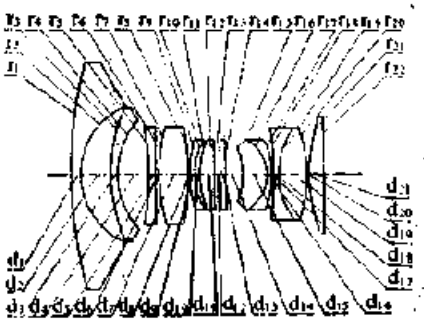


序号	r	d	n	ν	序号	r	d	n	ν
1	88.722	4.5	1.61272	58.6	10	−3220.849	5.6	1.78477	26.0
2	30.358	24.5			11	14.818	11.3	1.74372	45.0
3	89.627	3.9	1.62041	60.3	12	−56.365	0.2		
4	14.301	15.5			13	−305.981	4.8	1.76764	46.5
5	−68.282	1.3	1.48848	70.3	14	−28.988	17.2		
6	17.127	5.8	1.78470	26.0	15	64.417	2.6	1.78436	26.0
7	59.586	3.2			16	22.274	17.4	1.62230	53.1
8	∞	1.9	1.51743	58.5	17	−69.508			
9	∞	6.4							

编号：03-02-096

超 广 角 镜 头

E.F.L＝1　　B.F.L＝2.25　　FNo.＝2.8　　F.A.＝±90°



序号	r	d	n	ν	序号	r	d	n	ν
1	9.8493	0.1300	1.6610	54.1	12	28.8850	0.1000		
2	1.3000	0.5307			13	∞	0.0915	1.5994	40.8
3	2.9757	0.1200	1.6700	57.1	14	∞	0.3058		
4	1.3140	0.5913			15	1.4966	0.4331	1.6388	60.1
5	−3.1775	0.1000	1.6204	60.3	16	−0.6905	0.1000	1.7618	26.5
6	32.3020	0.0750			17	−1.2414	0.0090		
7	9.1718	0.5133	1.6676	44.9	18	−7.5358	0.0850	1.7400	37.5
8	−5.3920	0.0090			19	1.4093	0.5100	1.6230	58.1
9	2.3056	0.1000	1.6214	41.2	20	−2.0771	0.0090		
10	1.1154	0.0750			21	3.0419	0.2650	1.5168	64.2
11	1.5001	0.2739	1.7545	32.8	22	−16.3930			

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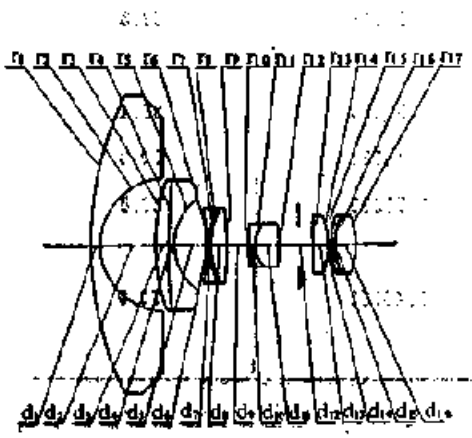
编号：03-02-097

超 广 角 摄 影 镜 头

E.F.L＝1　　B.F.L＝4.5616　　FNo.＝2.8　　F.A.＝±90°

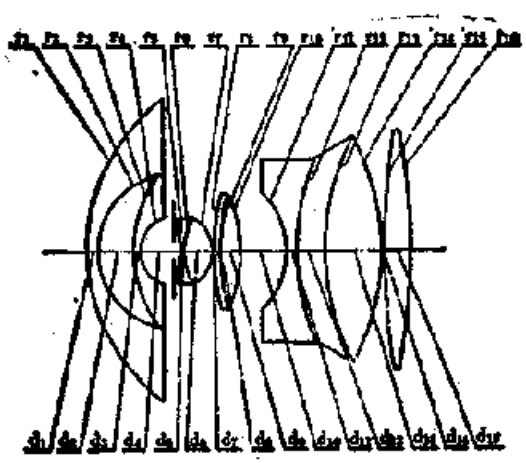


序号	r	d	n	ν	序号	r	d	n	ν
1	12.5508	0.3406	1.5891	61.0	10	10.6177	0.2433	1.7885	50.1
2	2.3973	2.0581			11	−1.0641	0.8722	1.6034	38.0
3	6.7504	0.4841	1.7847	25.6	12	−8.5301	1.2638		
4	23.0172	0.2433	1.5891	61.0	13	−82.8154	0.5340	1.5184	60.1
5	2.0662	1.9668			14	−3.1680	0.0243		
6	−30.4548	0.1910	1.6700	57.3	15	−3.2995	0.1825	1.9225	20.9
7	2.7598	0.0255			16	1.8270	0.7992	1.5184	60.1
8	3.0080	0.5681	1.6668	33.0	17	−2.8557			
9	−46.5882	0.8687							

编号：03-02-098

超 广 角 镜 头

E.F.L=12　　B.F.L=　　FNo.=10　　F.A.=±135°



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序　号	r	d	n_D	ν
1	28.81	1.50	1.53996	59.6
2	11.67	5.50		
3	18.54	0.95	1.53996	59.6
4	5.15	6.22*		
5	− 10.00	0.60	1.66782	42.8
6	10.00	4.40	1.56873	63.1
7	− 5.65	0.25		
8	43.53	1.04	1.56873	63.1
9	43.53	3.04	1.69313	53.3
10	− 22.94	7.08		
11	− 12.70	1.80	1.59270	35.4
12	37.04	4.20	1.48750	70.0
13	37.04	9.00	1.71300	53.8
14	− 37.04	0.20		
15	147.96	4.00	1.48750	70.0
16	−120.00			

6.22* = 5.22 + 1.00

编号：03-02-099

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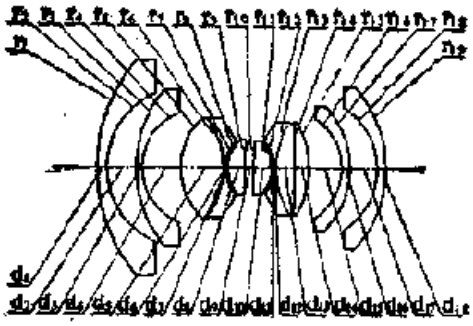
八片式超广角镜头

E.F.L=1 B.F.L= FNo.=5.6 F.A.=±60.5°



序号	r	d	r_d	v	序号	r	d	r_d	v
1	1.29775	0.06838	1.51633	64.0	11	−0.29168	0.00331		
2	0.81125	0.31736			12	−0.28200	0.01869	1.61293	37.0
3	−0.22057	0.05676	1.51633	64.0	13	0.58305	0.15238	1.66446	35.9
4	−0.43467	0.23924			14	−5.11339	0.11788	1.67786	55.5
5	0.52532	0.31583	1.67786	55.5	15	−0.62426	0.27429		
6	−0.63863	0.01669	1.60562	43.9	16	−0.44284	0.05247	1.72825	28.3
7	0.27184	−0.00488			17	−0.70771	0.20744		
8	0.28280	0.12722	1.55115	49.6	18	−0.53779	0.06397	1.58913	61.2
9	28.73676	0.06161			19	−0.90718			
10	4.87753	0.12794	1.55361	51.4					

编号：03-02-100

八片式超广角镜头

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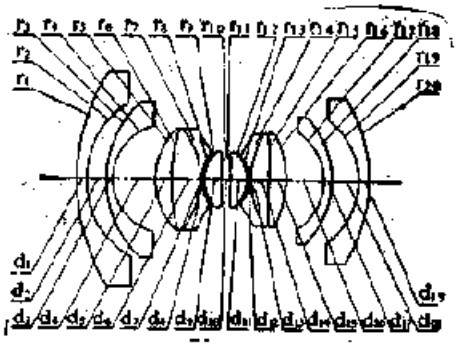
E.F.L=1　　B.F.L=　　FNo.=5.6　　F.A.=±30.5°



序号	r	d	n_d	v	序号	r	d	n_d	v
1	1.40773	0.06773	1.52088	60.2	11	9.08195	0.13175	1.56384	60.7
2	0.64801	0.15508			12	- 0.29219	0.00264		
3	0.80938	0.05644	1.61272	58.6	13	- 0.28565	0.01693	1.58215	42.8
4	0.44316	0.30661			14	0.57550	0.13957	1.65128	38.3
5	0.53348	0.11958	1.66680	33.1	15	25.53558	0.12504	1.54328	47.8
6	1.16220	0.22175	1.88755	41.9	16	- 0.66308	0.28465		
7	- 0.58504	0.01693	1.61659	36.6	17	- 0.43336	0.05193	1.72342	38.0
8	0.26232	0.00815			18	- 0.65051	0.19993		
9	0.27680	0.12996	1.55232	63.5	19	- 0.52868	0.06435	1.52944	51.8
10	- 7.50150	0.06209			20	- 1.08898			